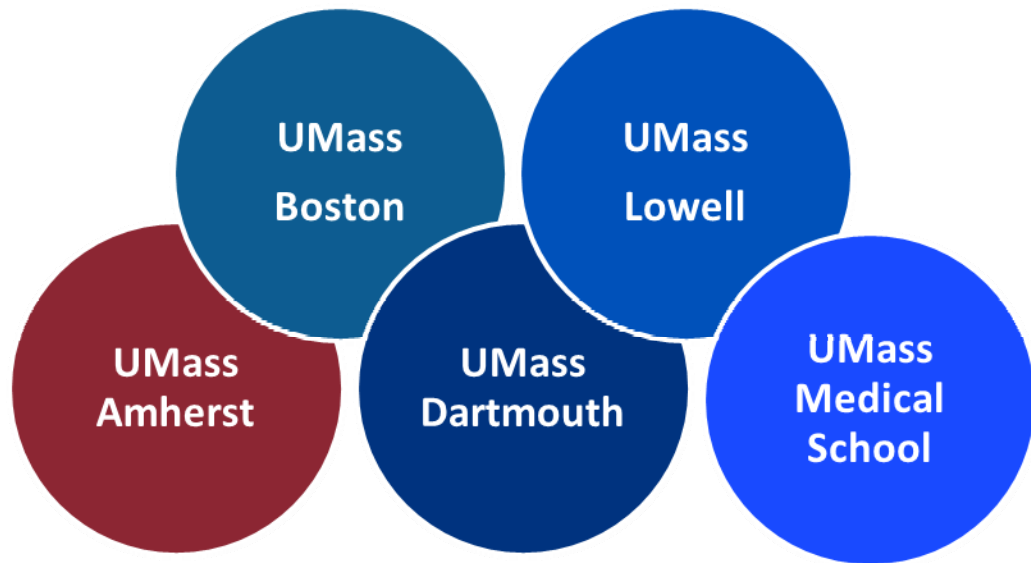




The University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline



FY 2014

Annual R&D Expenditures Report Expanded Version

(With NSF Rankings and Comparison data)

March 2015

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TECHNICAL NOTE

The *FY2014 Annual Research and Development Expenditures Report (Expanded Version)* presents information on the research and development expenditures for the University of Massachusetts System. This expanded version of the previously published abridged FY2014 R&D Expenditures Report includes additional highlights as well as national rankings and comparison data based on FY2013 figures.

The NSF Survey Definition for Research and development (R&D) is “creative work conducted systematically to increase the stock of knowledge (research) and to use this stock of knowledge to devise new applications (development). R&D covers three activities defined below—basic research, applied research, and development.”

- Basic research is undertaken primarily to acquire new knowledge without any particular application or use in mind.
- Applied research is conducted to gain the knowledge or understanding to meet a specific, recognized need.
- Development is the systematic use of the knowledge or understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes.

R&D Expenditures – (What to Include) - For purposes of the HERD survey, R&D includes expenditures for organized research as defined by 2 CFR 200 Appendix III and expenditures from funds designated for research.

R&D <i>includes</i> :	R&D does <i>not</i> include:
<ul style="list-style-type: none"> • Sponsored research (federal and nonfederal) • University research (institutional funds that are separately budgeted for individual R&D projects) • Startup, bridge, or seed funding provided to researchers within your institution • Other departmental funds designated for research • Recovered and unrecovered indirect costs (see definitions in Question 1) • Equipment purchased from R&D project accounts • R&D funds passed through to a sub-recipient organization, educational or other • Clinical trials, Phases I, II, or III (see definition in Question 5) • Research training grants funding work on organized research projects • Tuition remission provided to students working on research 	<ul style="list-style-type: none"> • Public service grants or outreach programs • Curriculum development (unless included as part of an overall research project) • R&D conducted by university faculty or staff at outside institutions that is not accounted for in your financial records • Estimates of the proportion of time budgeted for instruction that is spent on research • Capital projects (i.e., construction or renovation of research facilities) • Non-research training grants • Unrecovered indirect costs that exceed your institution’s federally negotiated Facilities and Administrative (F&A) rate

Source: FY 2014 HERD Survey

Barbara Velardi
Institutional Research Associate

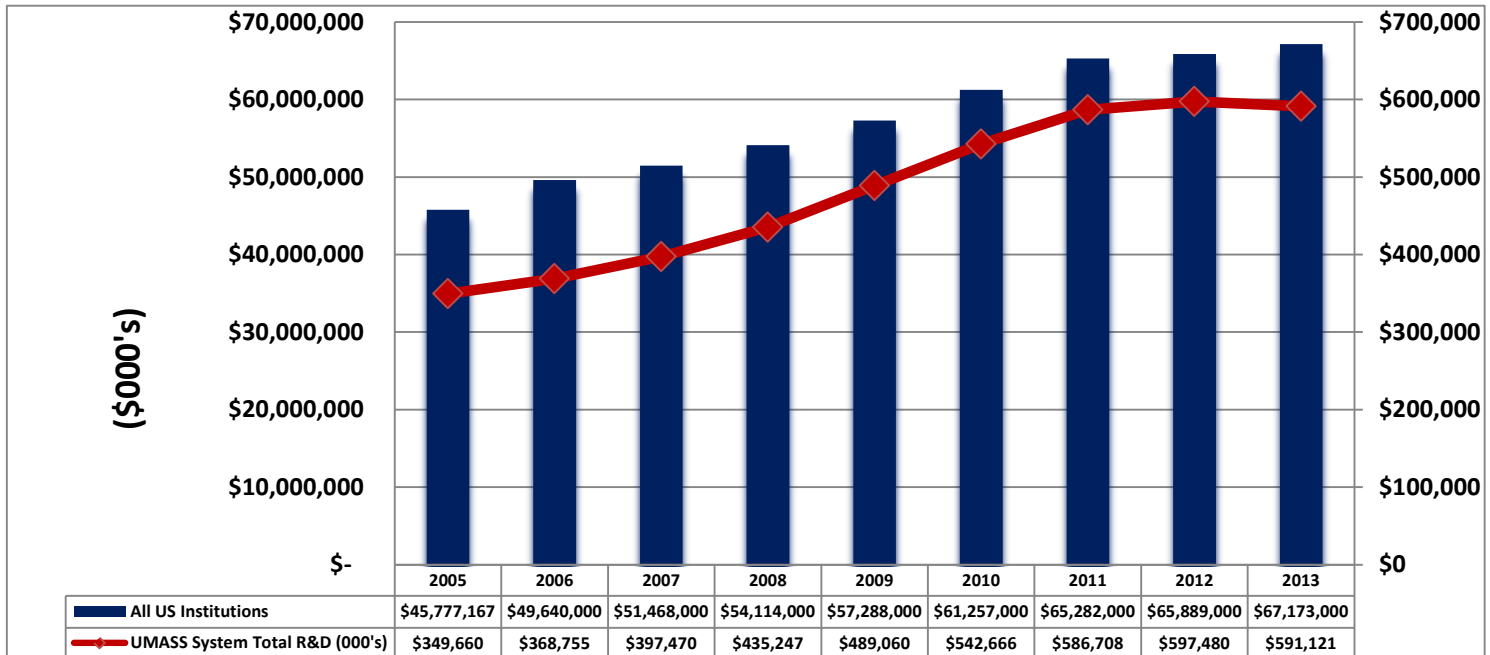
Neena Verma
Director of Institutional Research

Adam Collins
Institutional Research Analyst

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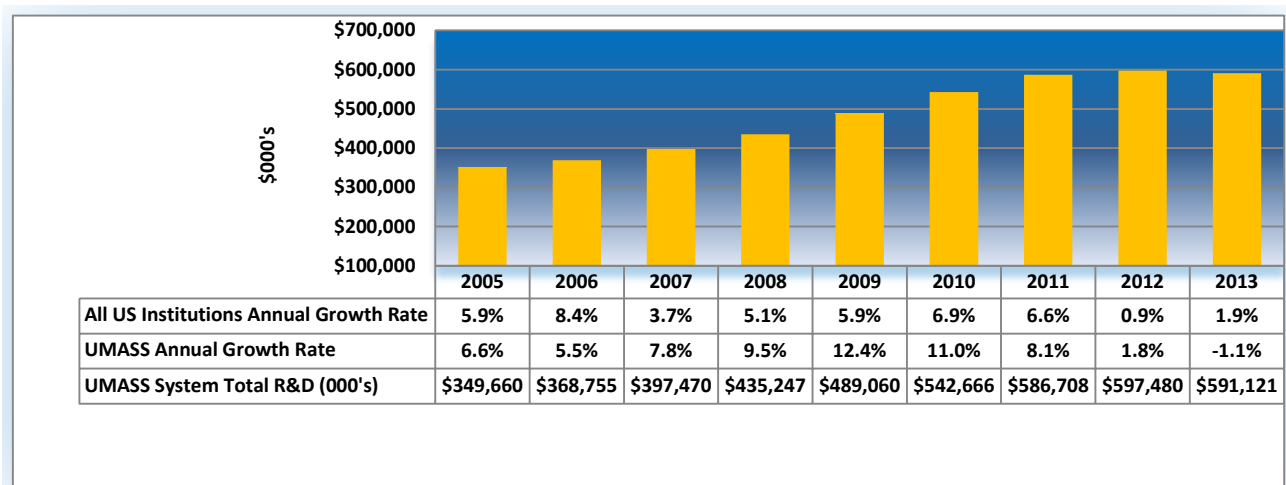
EXECUTIVE SUMMARY

- UMASS Total R&D Expenditures** - Total FY2014 R&D Expenditures for the University of Massachusetts System was reported at \$603 million, which represents a two percent increase from the FY2013 total of \$591 million.
- UMASS versus All U.S. Institutions - Total R&D Expenditures and Growth** - Between FY2005-FY2013, UMASS showed higher or similar annual growth rates in Total R&D Expenditures in comparison to national trends for all years except FY2013, when the growth rate for UMASS declined by (-1%) in the face of 2% U.S. growth.



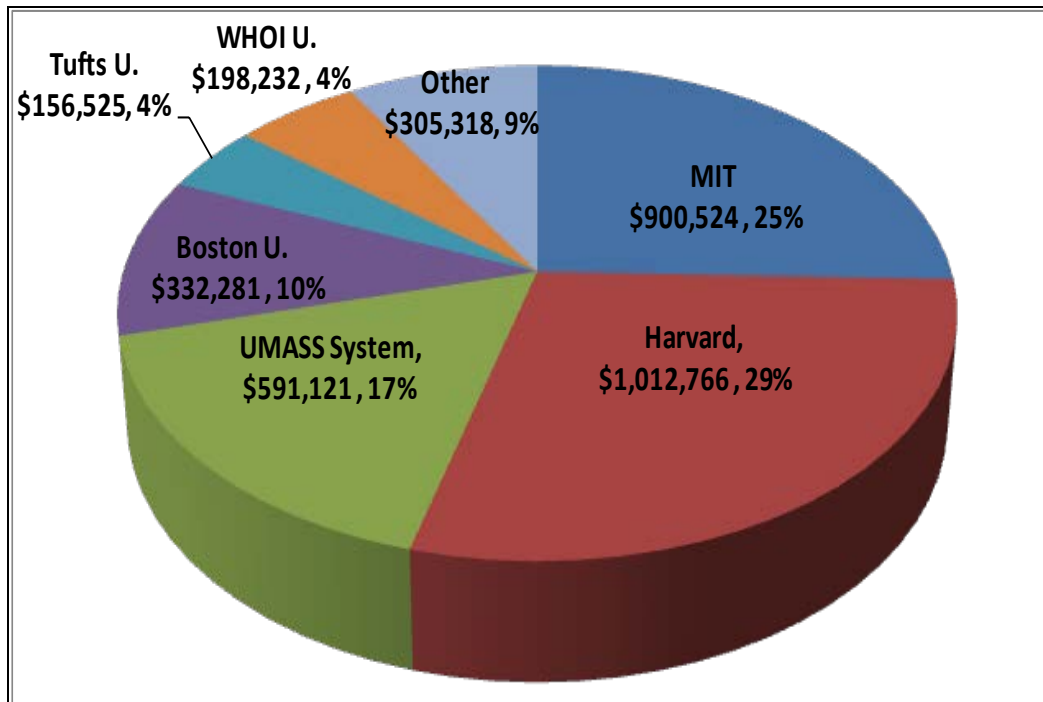
*Total R&D Expenditures: UMASS versus All U.S. Institutions
As Percent of all MA Institutions, FY2005-FY2013*

The last year (FY2014) saw a slight growth in Total R&D for UMASS of (2%). Despite cuts in federal R&D monies overall, UMASS R&D continued to grow, albeit at a slower pace.



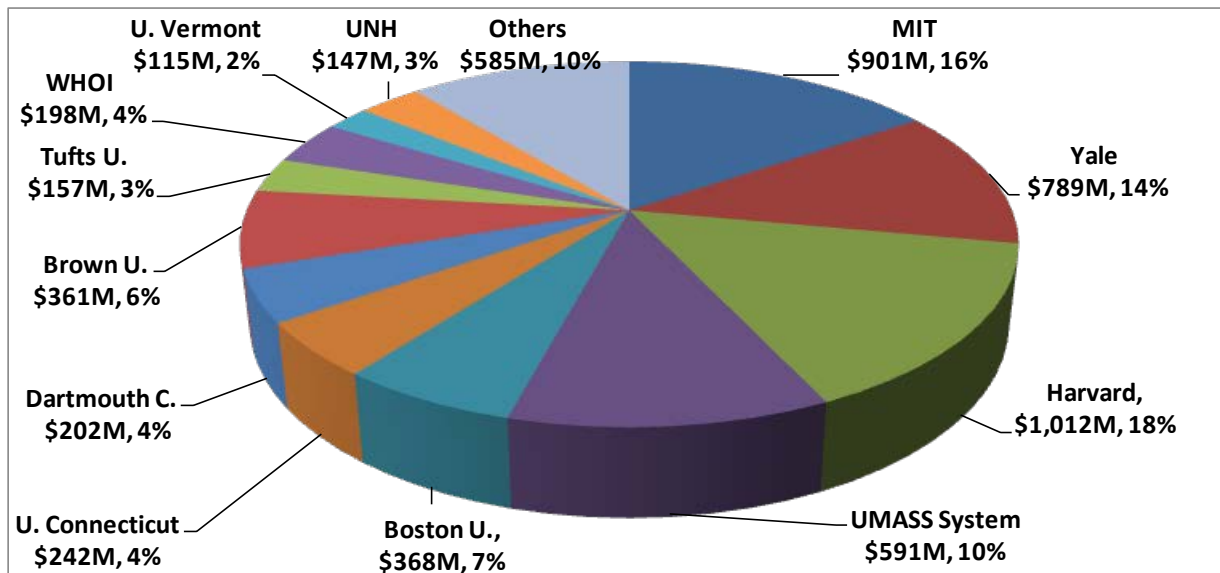
*Total R&D Expenditures: UMASS System (FY2005 – FY2013)
With Comparative Annual Growth for UMASS and All U.S. Institutions (FY2005-FY2013)*

- UMASS Total R&D Expenditures as Percent of MA Institutions - Based on FY 2013 data, the UMASS System comprised 17% of the Total R&D Expenditures for Massachusetts institutions.



*Total R&D Expenditures: UMASS System and Select Institutions
As Percent of all MA Institutions, FY 2013 (Dollars in Thousands)*

- UMASS State Ranking in Total R&D Expenditures - Among Massachusetts colleges and universities, UMASS ranks 3rd in Total R&D Expenditures. UMass, MIT, Harvard, and BU together account for 81% of the academic R&D Expenditures in the state. (Rankings based on FY 2013 data).
- UMASS Total R&D Expenditures as Percent of New England Institutions – Based on FY 2013 data, the UMASS System comprises 10% of the Total R&D Expenditures for New England institutions.



*Total R&D Expenditures: UMASS System and Select Institutions
As Percent of All New England Institutions (FY 2013)*

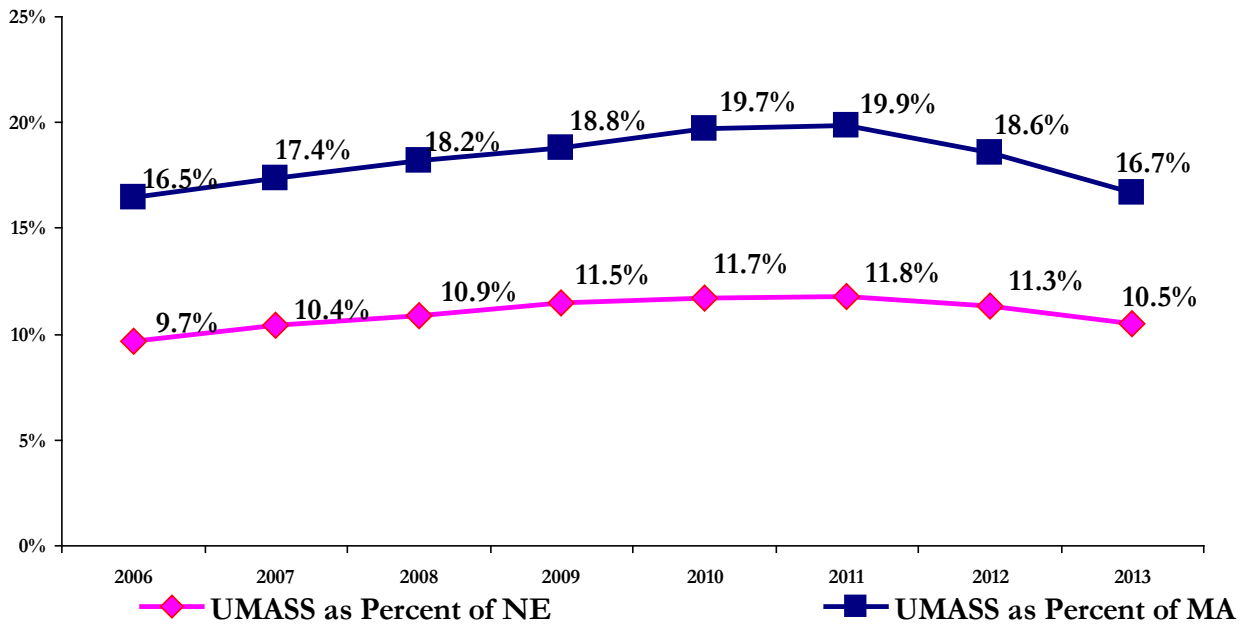
- **UMASS ranks 4th among all New England universities and colleges (FY 2013)** – Among all New England academic institutions, UMASS ranks 4th, only behind MIT, Yale, and Harvard. UMASS is the leader among New England public university systems, with Total R&D Expenditures (\$591M) larger than the next three public university systems (UConn, UNH, and University of Vermont) combined (\$504M). Rankings based on FY2013 data.
- **UMASS R&D Expenditures by Funding Source (FY2014)** – In terms of funding sources, 60% is from the federal government, 28% is from institutional sources, 4% is from state and local government, 3% from businesses, 5% from non-profit organizations, and 1% is from other sources (e.g., private foundations).
- **UMASS Areas of Funding Growth** – Between the reporting cycles FY2013-14, industry/business sponsorship stayed steady at 8%, and institutional funding increased slightly from 27% to 28%. State and local government funding was at 4% of all funds. As anticipated, federal funding continued its downward trend, dropping again this year from 62% to 60%.
- **Life Sciences Continues to Comprise More Than Half of all R&D Expenditures at UMASS** - At \$337.4 million, life sciences constitute more than half of UMass’s total R&D expenditures (56%).
FY2014 distribution of R&D expenditures by field is:

Life Sciences	55.9%	Social Sciences	2.7%
Physical Sciences	8.6%	Non Sciences/Engineering	11.5%
Engineering	11.2%	Psychology	1.7%
Computer Sciences	4.3%	Mathematical Sciences	0.5%
Environmental Sciences	2.9%	Other Sciences	0.6%

Additional Highlights for UMASS and UMASS Campuses

I. UMASS Total R&D Expenditures As Percent of All New England and Massachusetts Institutions

- The University of Massachusetts Total R&D Expenditures has grown consistently over the past few years, keeping pace with R&D growth in MA overall. In FY 2006, UMass R&D Expenditures constituted 16.5% of all of Massachusetts R&D Expenditures as compared to 16.7% in FY 2013, with interim years reflecting a higher proportion of the MA total. *[Appendix A1]*.
- The University of Massachusetts R&D Expenditures continues to grow as a proportion of total R&D Expenditures for MA as well as all New England institutions. In FY2006, UMASS R&D Expenditures 9.7% of all of New England R&D Expenditures as compared to 10.5% in FY2013. *[Appendix A1]*.



UMASS Science and Engineering R&D Expenditures as Percent of MA and New England

- When compared to the New England region, UMASS performance in R&D Expenditures varies by field. The top fields in this arena have been Math & Computer Sciences and Non-Science and Engineering, where UMass R&D Expenditures comprised 13% and 14% respectively, of all New England institutions' R&D Expenditures, followed by Life Sciences (12%) and Physical Sciences (12%), Psychology (10%), Social Sciences (9%), and Engineering (7%). When compared to institutions in Massachusetts, the top performing fields for UMass R&D Expenditures are Non-Science and Engineering (23%) and Life Sciences (23%), Psychology (20%), Math & Computer Sciences (19%), and Physical Sciences (16%), and Social Sciences (13%), *[Appendix A2]*.

II. NSF Research and Development Expenditures Rankings Based on FY2013 and Past Trends

UMASS System Ranking

- The University of Massachusetts System ranked 34th nationally, with a total of \$591.1M in Total R&D Expenditures (Among the top 5% in rankings nationwide), and 22nd among all US Publics. [*Appendix B1, B2*].¹

UMASS Campuses – Total R&D Expenditures Rankings (Among ALL and Public Institutions)

- With \$246M, UMass Medical School ranked 84th nationally in Total R&D Expenditures from a total of 645 ranked institutions nationwide (among the top 13% in rankings). Among Public institutions, UMass Medical School ranked 55th [FY2013, *Appendix B1, Appendix B2*].
- With \$191M, UMass Amherst ranked 105th nationally in Total R&D Expenditures from a total of 645 ranked institutions nationwide (among the top 16% in rankings). UMass Amherst ranked 72nd among public institutions and 69th among Non-Medical school R&D Expenditures [FY2013, *Appendix B1, Appendix B2, Appendix E*].
- With \$63M in Total R&D Expenditures in FY 2013, UMass Lowell ranked 178th out of the 645 ranked academic institutions in the NSF HERD Survey (among the top 28% in rankings). UMass Lowell ranked 130th among public institutions and 154th among Non-Medical school R&D Expenditures [FY2013, *Appendix B1, Appendix B2, Appendix E*].
- With \$60M in Total R&D Expenditures in FY2013, UMass Boston ranked 185rd out of 645 ranked institutions (Among the top 29% in rankings). UMass Boston ranked 134th among public institutions and 158th among Non-Medical school R&D Expenditures [FY2013, *Appendix B1, Appendix B2, Appendix E*].
- With \$27M in Total R&D Expenditures, UMass Dartmouth ranked 240th out of 645 ranked institutions (among the top 37% in rankings). UMass Dartmouth ranked 177th among public institutions and 208th among Non-Medical school R&D Expenditures [FY2013, *Appendix B1, Appendix B2, Appendix E*].

UMass Campuses – Prominent Rankings

- UMass Amherst has consistently ranked among the top 25 universities and colleges nationwide in total R&D Expenditures in the Computer Science field. In FY 2011, UMass Amherst ranked 24th among the first 100 institutions [*Appendix F*].
- UMass Boston has consistently ranked among the first 100 institutions for academic R&D Expenditures in the Social Sciences over the past five years. In FY 2013, UMass Boston ranked 60th [*Appendix M*].
- Over the past eight years, UMass Dartmouth's ranking has ranged between 67th-77th among the first 100 institutions, for total academic R&D Expenditures in the Environmental Sciences. In FY 2013, UMass Dartmouth ranked 70th [*Appendix H*].

¹ University of Massachusetts System level ranking is a derived ranking.
UMass President's Office ❖ Institutional Research

- UMass Medical School's ranking for colleges and universities Total R&D Expenditures in Life Sciences has consistently been high over the past five years. In FY 2013, UMass Medical School had a ranking of 52nd in FY2013, among the first 150 institutions in this category [*Appendix I*].

Additional Rankings

- UMass Amherst has consistently ranked among the first 100 universities and colleges in R&D Expenditures in Engineering over the past five years. UMass Amherst's ranked 66th in Engineering in FY2013 [*Appendix G*].
- UMass Amherst has consistently ranked among the first 100 universities and colleges for R&D Expenditures in Mathematical Sciences. In FY 2013, UMass Amherst ranked 79th [*Appendix J*].
- UMass Amherst has consistently ranked among the first 100 institutions for R&D Expenditures in the Physical Sciences. In FY 2013, UMass Amherst ranked 40th. UMass Lowell also ranked among the top 100 institutions (82nd) in FY 2013 [*Appendix K*].
- In FY 2013, UMass Boston ranked 82nd and UMass Amherst ranked 76th among the first 100 universities and colleges in R&D Expenditures in Psychology [*Appendix L*].

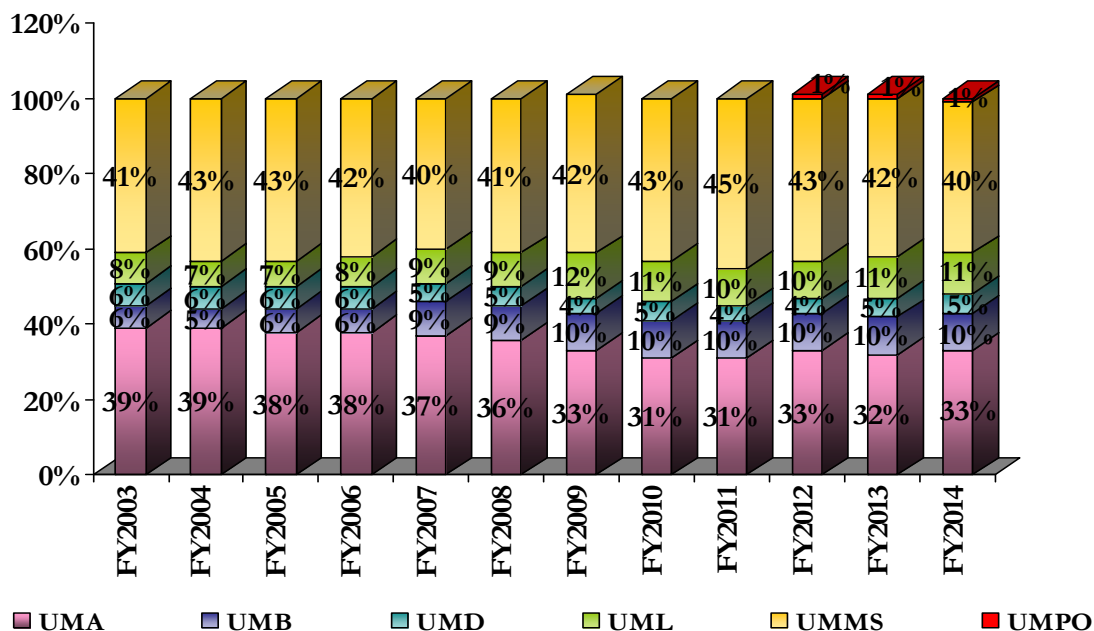
A. TOTAL R&D EXPENDITURES

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A. TOTAL R&D EXPENDITURES - FY2014

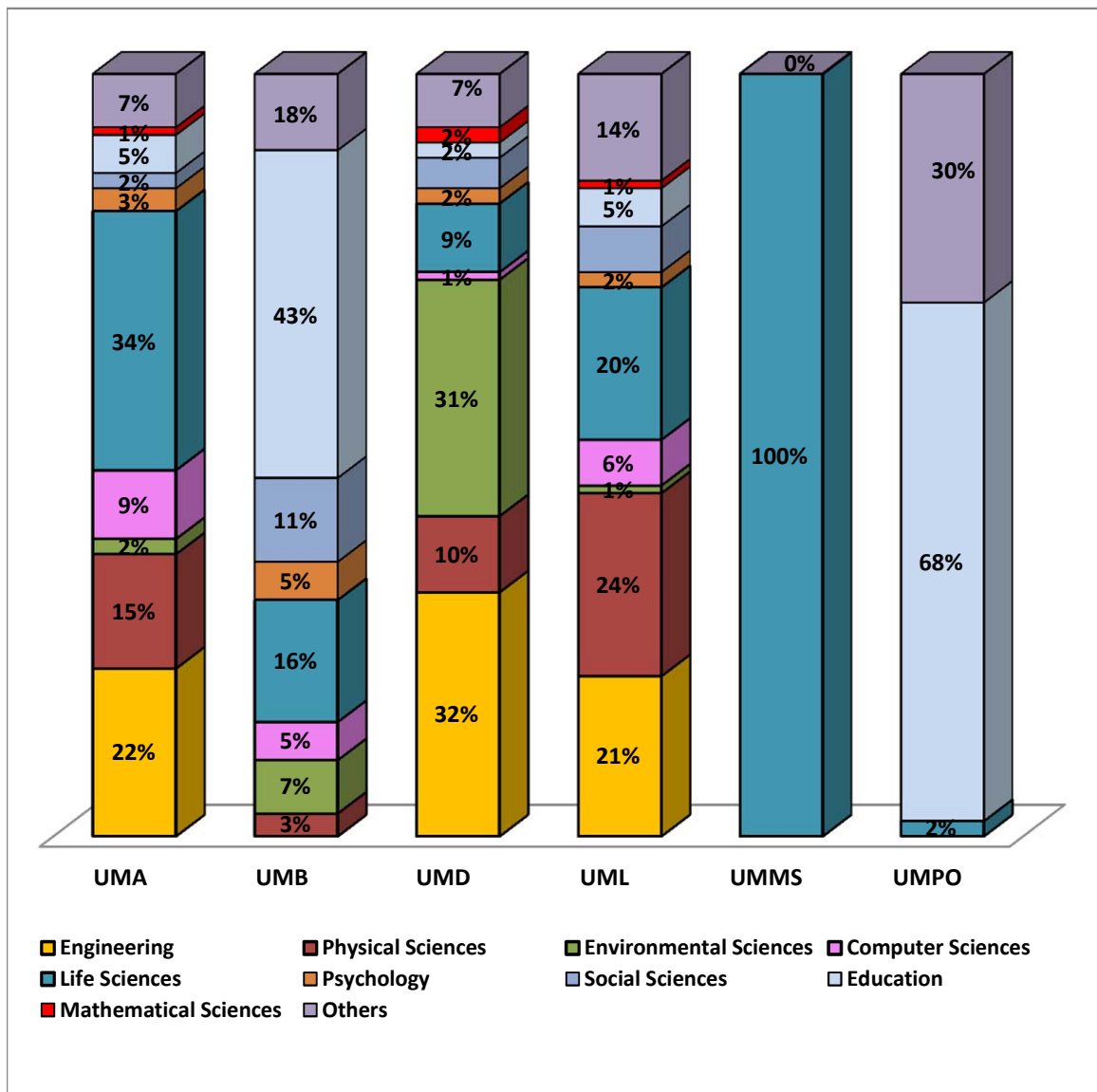
1. Total FY2014 R&D Expenditures for the University of Massachusetts System was reported at \$603.01 million, which represents a two percent increase from the FY2013 total of \$591.12 million.
2. UMass Campuses showed variation in growth rates over the past year. The smaller campuses (UMass Boston, UMass Dartmouth, UMass Lowell), with reasearch activities in the \$28-\$65 million range, reported increases in the growth rate of their R&D Expenditures ranging between 2 to 3 percent, even during a challenging funding climate. UMA showed the highest growth in R&D expenditures over the past year, at 5 percent, while UMMS showed a 1.6 percent decline. Both campuses continue to post impactful R&D expenditures figures, in the \$200-\$250 million range.
3. Within the UMASS System, two-fifths (40%) of the total R&D Expenditures is attributed to the UMass Medical School and one-third (33%) to UMass Amherst.
4. The other campuses (UMass Boston, UMass Dartmouth and UMass Lowell) have gradually increased their proportion of the System Total R&D Expenditures, from 20% in FY2003 to 26% in FY2014.
5. The UMass President's Office reported R&D Expenditures to NSF for the third time in FY2014, and contributed \$5.875 million to the University's Total R&D monies, reflecting a 62% increase over FY2013.

UMASS Campuses and President's Office Total R&D Expenditures



5. R&D expenditures activities at UMass campuses vary by field. In FY2014, while UMass Amherst's top three R&D Expenditures areas were Life Sciences (34%), Engineering (22%), and Physical Sciences (15%), UMass Boston's concentration was primarily in Education (43%), Life Sciences (16%), the Social Sciences (11%), and Psychology (5%). UMass Dartmouth's major areas of concentration were in the fields of Environmental Sciences (31%) and Engineering (32%), and for UMass Lowell, Physical Sciences (24%) and Engineering (21%). The UMass Medical School had 100% of its R&D Expenditures in the Life Sciences. The UMass President's Office research contributions were primarily in Education (68%).

UMass Campuses: Total R&D Expenditures by Field (FY2014)



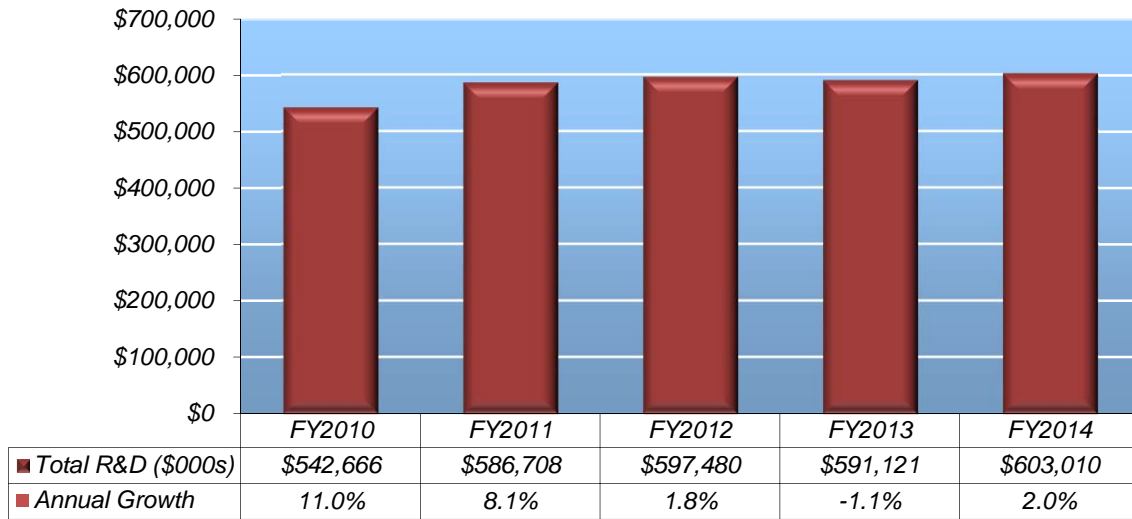
A. TOTAL R&D EXPENDITURES

DATA AND CHARTS

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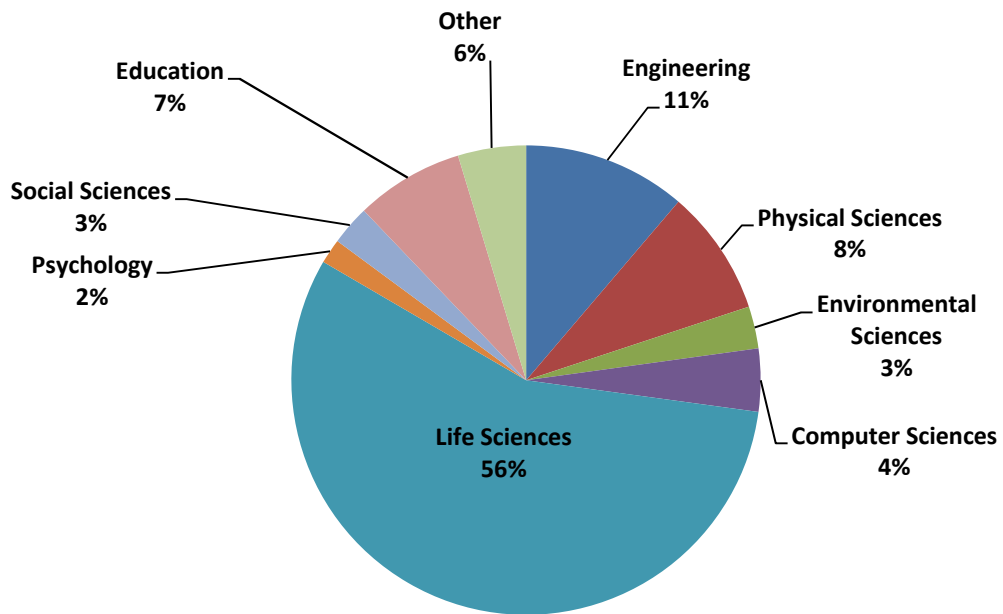
UMASS System

Total R&D Expenditures FY2010 - FY2014



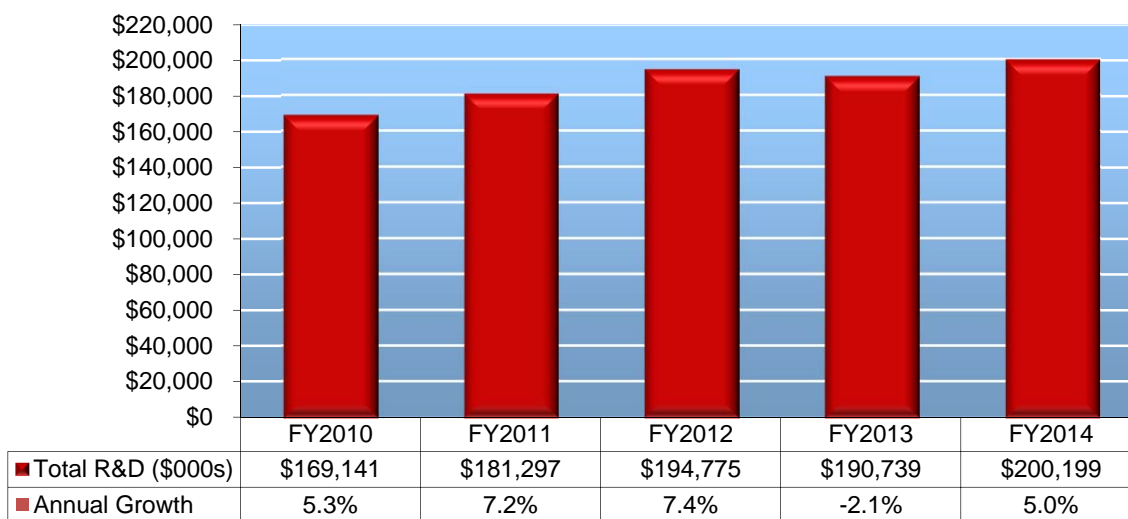
FY 2010 figures have been revised from the FY 2010 R&D Report publication (\$542,668).

Total R&D Expenditures FY2014



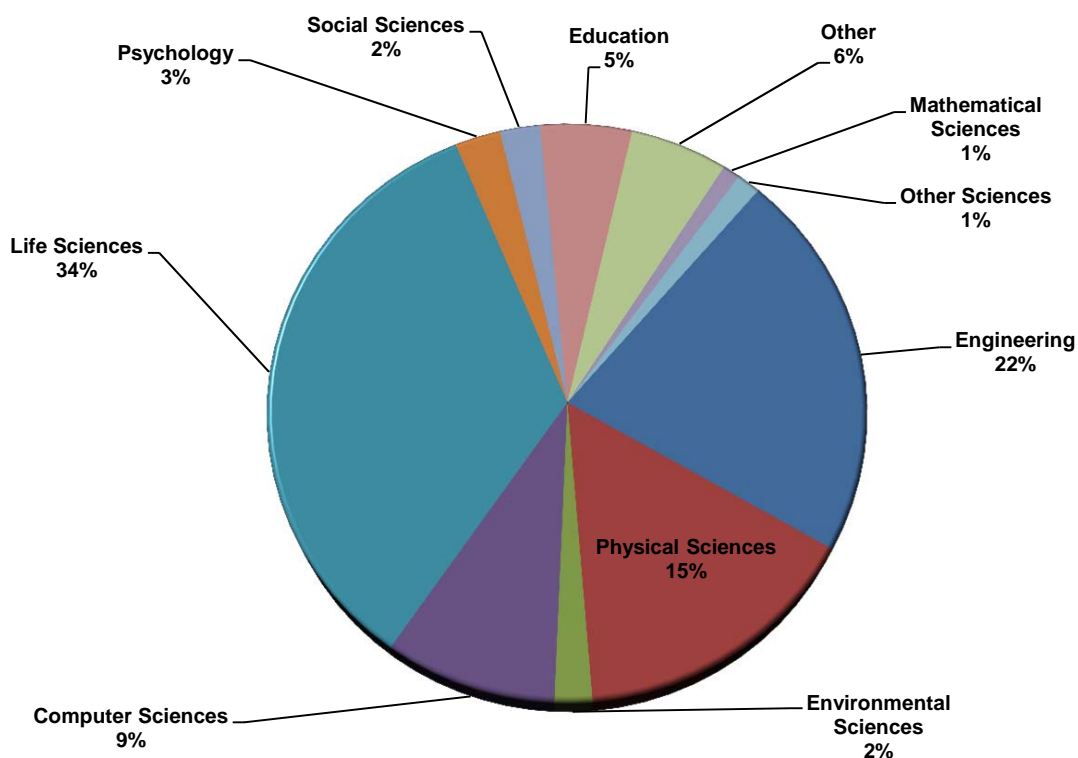
Amherst

Total R&D Expenditures FY2010 - FY2014



Note: UMA FY2010 figures have been revised since the FY2010 R&D Report publication.

Total R&D Expenditures FY2014

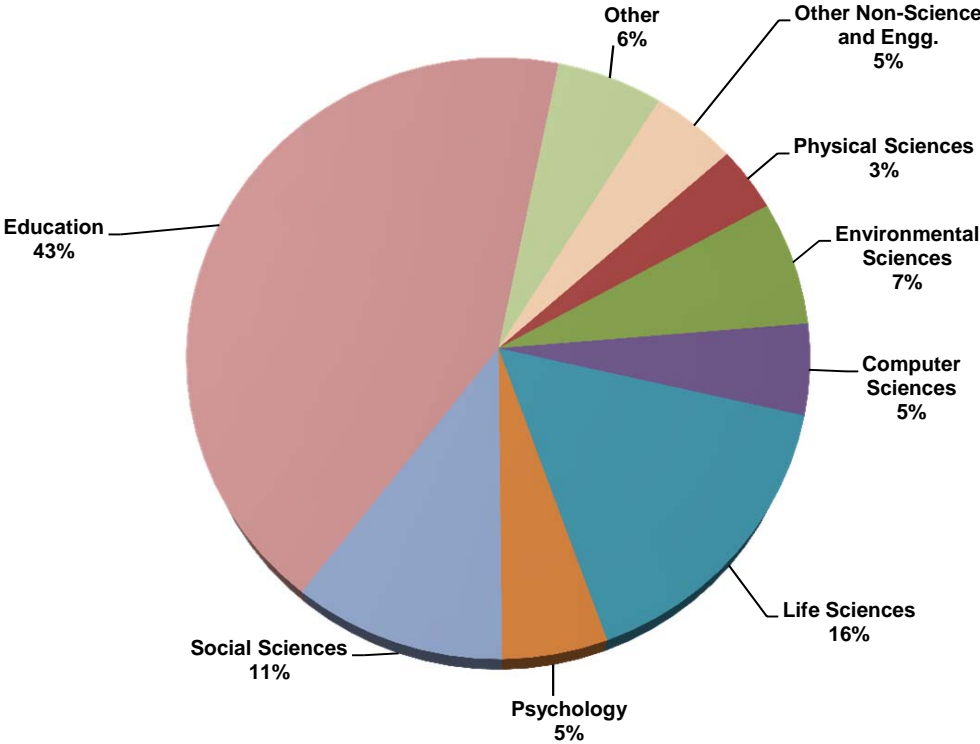


Boston

Total R&D Expenditures FY2010 - FY2014

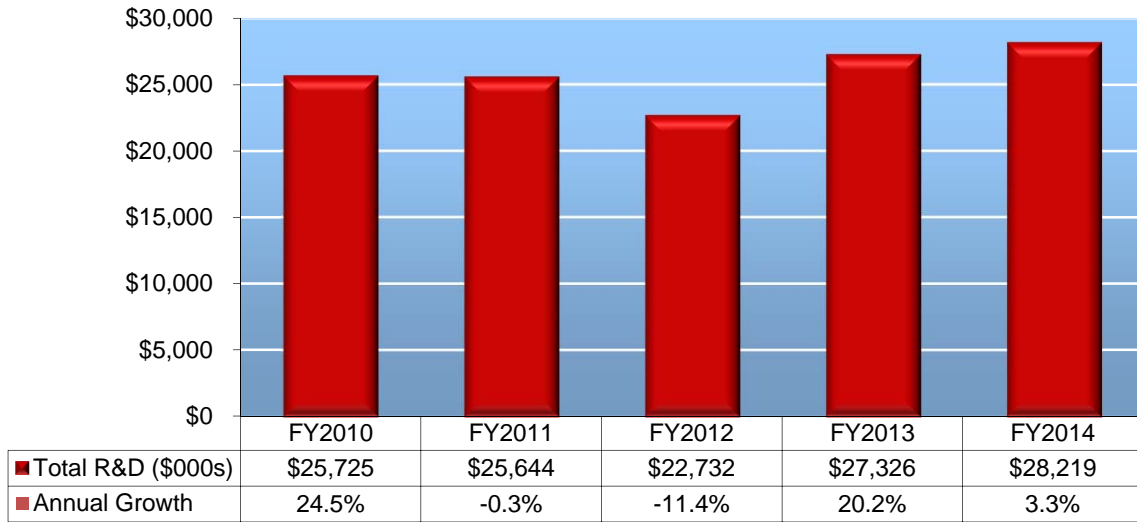


Total R&D Expenditures FY2014

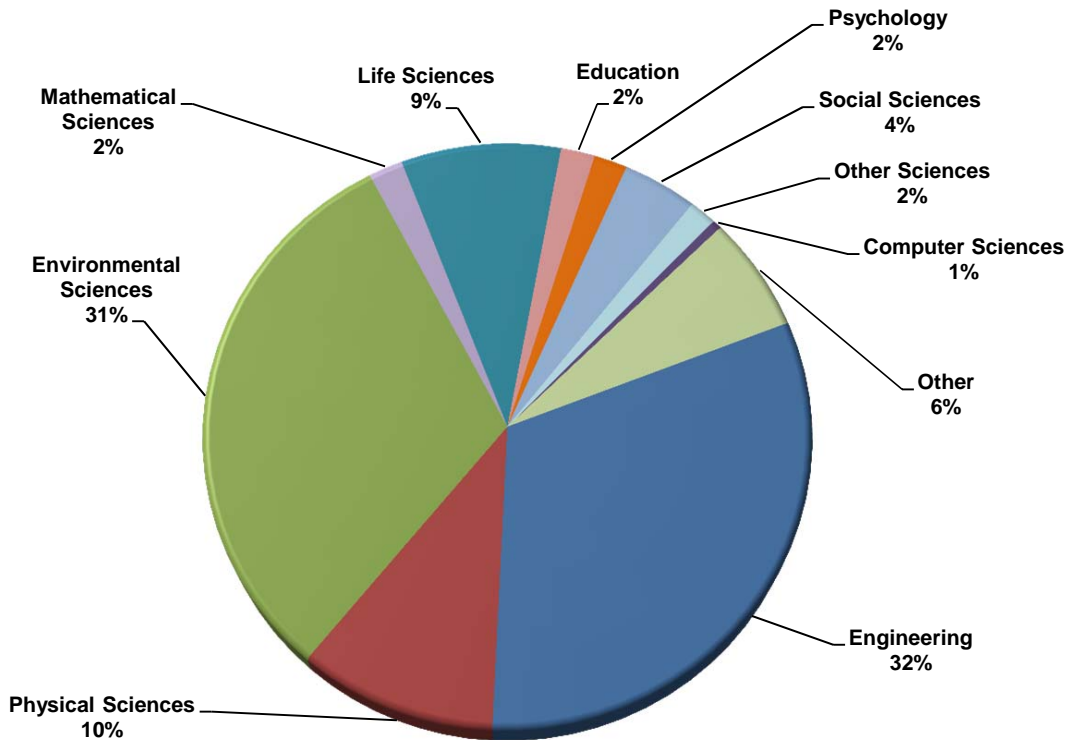


Dartmouth

Total R&D Expenditures FY2010 - FY2014



Total R&D Expenditures FY2014

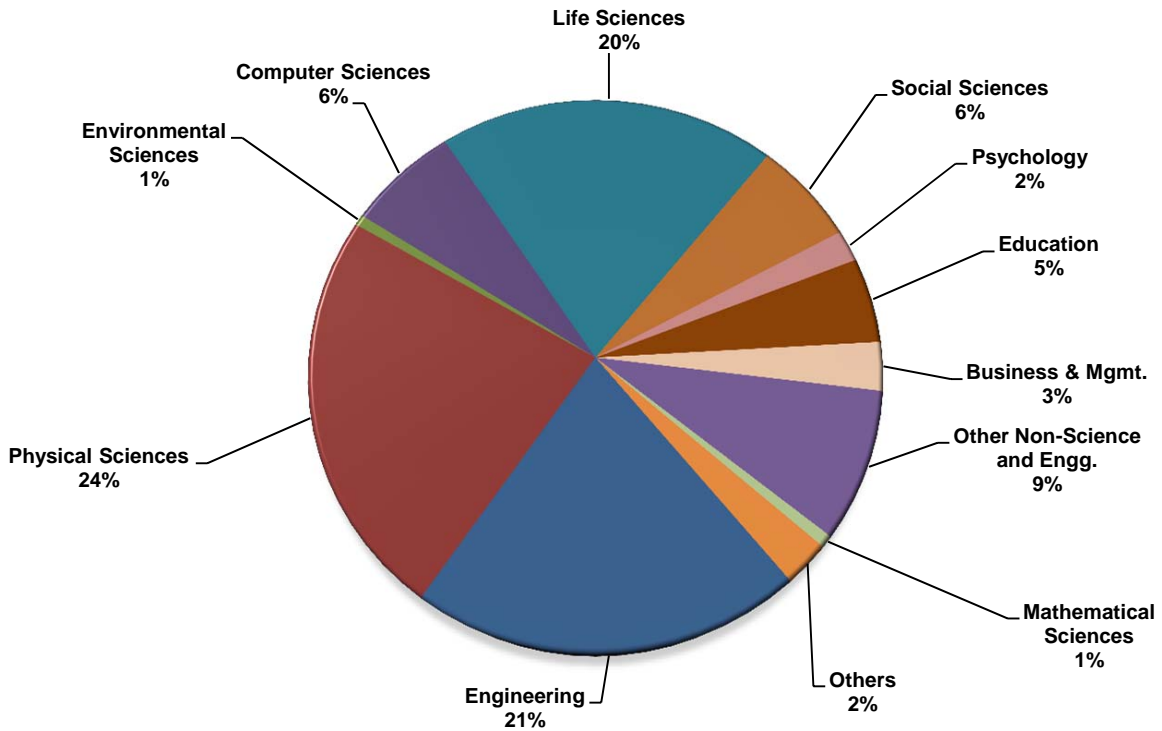


Lowell

Total R&D Expenditures FY2010 - FY2014

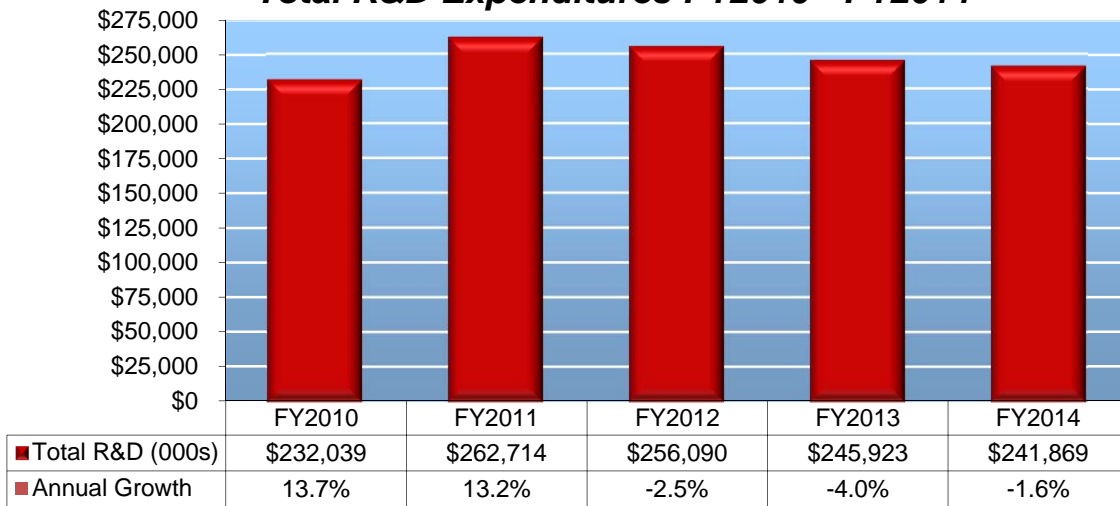


Total R&D Expenditures FY2014



Medical School

Total R&D Expenditures FY2010 - FY2014



All of the Medical School's R&D expenditures are in the Life Sciences.

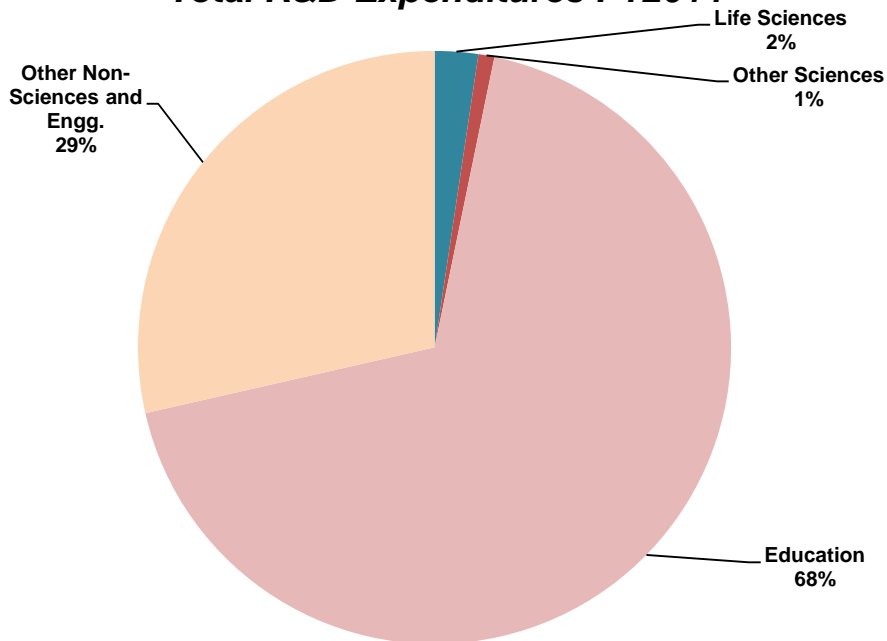
President's Office

Total R&D Expenditures FY2012 - FY2014



President's Office

Total R&D Expenditures FY2014



B. R&D EXPENDITURES by FIELD
ADDITIONAL CAMPUS DETAILS

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FY 2014 Total R&D Expenditures by Field (Federal and Non-Federal)

FIELD	UMA					UMB				
	Federal	Non-Federal	UMA Total	% of UMA Total	% of Field	Federal	Non-Federal	UMB Total	% of UMB Total	% of Field
Engineering (Total)	\$25,507	\$19,360	\$44,867	22.4%	66.4%	\$120	\$113	\$233	0.4%	0.3%
Aeronautical & Astronomical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Bioengineering/Biomedical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Chemical	\$9,040	\$5,870	\$14,910	7.4%	74.3%	\$0	\$0	\$0	0.0%	0.0%
Civil	\$3,712	\$5,309	\$9,021	4.5%	75.7%	\$37	\$0	\$37	0.1%	0.0%
Electrical	\$9,154	\$4,486	\$13,640	6.8%	70.8%	\$83	\$113	\$196	0.3%	1.0%
Mechanical	\$3,525	\$3,248	\$6,773	3.4%	66.6%	\$0	\$0	\$0	0.0%	0.0%
Metallurgical & Materials	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Other	\$76	\$447	\$523	0.3%	14.5%	\$0	\$0	\$0	0.0%	0.0%
Physical Sciences (Total)	\$21,059	\$10,542	\$31,601	15.8%	60.7%	\$1,821	\$348	\$2,169	3.5%	4.2%
Astronomy	\$2,264	\$861	\$3,125	1.6%	100.0%	\$0	\$0	\$0	0.0%	0.0%
Chemistry	\$13,491	\$6,637	\$20,128	10.1%	73.5%	\$803	\$270	\$1,073	1.7%	3.9%
Physics	\$5,304	\$3,044	\$8,348	4.2%	38.8%	\$1,018	\$78	\$1,096	1.8%	5.1%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Environmental Sciences (Total)	\$2,861	\$1,168	\$4,029	2.0%	22.9%	\$2,580	\$1,584	\$4,164	6.7%	23.7%
Atmospheric	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Earth Sciences	\$2,861	\$1,168	\$4,029	2.0%	90.7%	\$0	\$0	\$0	0.0%	0.0%
Oceanography	\$0	\$0	\$0	0.0%	0.0%	\$2,552	\$1,426	\$3,978	6.4%	31.1%
Other	\$0	\$0	\$0	0.0%	0.0%	\$28	\$158	\$186	0.3%	54.7%
Mathematical Sciences (Total)	\$1,334	\$673	\$2,007	1.0%	65.0%	\$48	\$53	\$101	0.2%	3.3%
Computer Sciences (Total)	\$13,028	\$5,419	\$18,447	9.2%	71.1%	\$1,843	\$1,205	\$3,048	4.9%	11.7%
Life Sciences (Total)	\$33,215	\$36,534	\$69,749	34.8%	20.7%	\$4,981	\$4,941	\$9,922	15.9%	2.9%
Agricultural	\$13,461	\$10,618	\$24,079	12.0%	99.2%	\$0	\$0	\$0	0.0%	0.0%
Biological	\$13,059	\$9,826	\$22,885	11.4%	20.8%	\$1,851	\$1,062	\$2,913	4.7%	2.6%
Medical	\$5,567	\$8,314	\$13,881	6.9%	11.2%	\$333	\$1,961	\$2,294	3.7%	1.8%
Other	\$1,128	\$7,776	\$8,904	4.4%	11.3%	\$2,797	\$1,918	\$4,715	7.6%	6.0%
Psychology (Total)	\$3,500	\$1,709	\$5,209	2.6%	50.8%	\$1,654	\$1,647	\$3,301	5.3%	32.2%
Social Sciences (Total)	\$1,230	\$3,351	\$4,581	2.3%	27.8%	\$1,110	\$5,548	\$6,658	10.7%	40.4%
Economics	\$125	\$715	\$840	0.4%	44.5%	\$47	\$118	\$165	0.3%	8.7%
Political Science	\$100	\$540	\$640	0.3%	11.7%	\$69	\$3,658	\$3,727	6.0%	67.8%
Sociology	\$430	\$1,578	\$2,008	1.0%	47.9%	\$880	\$909	\$1,789	2.9%	42.7%
Other	\$575	\$518	\$1,093	0.5%	22.2%	\$114	\$863	\$977	1.6%	19.9%
Other Sciences (Total)	\$948	\$1,772	\$2,720	1.4%	75.2%	\$387	\$38	\$425	0.7%	0.0%
TOTAL, SCI & ENG FIELDS	\$102,682	\$80,528	\$183,210	91.5%	34.3%	\$14,544	\$15,477	\$30,021	48.2%	5.6%
FIELD	Federal	Non-Federal	UMA Total	% of UMA Total	% of Field	Federal	Non-Federal	UMB Total	% of UMB Total	% of Field
Education	\$5,949	\$4,547	\$10,496	5.2%	23.4%	\$13,382	\$13,190	\$26,572	42.7%	59.4%
Law	\$0	\$2	\$2	0.0%	100.0%	\$0	\$0	\$0	0.0%	0.0%
Humanities	\$136	\$1,899	\$2,035	1.0%	60.9%	\$0	\$556	\$556	0.9%	16.7%
Visual and Performing Arts	\$75	\$661	\$736	0.4%	50.3%	\$0	\$85	\$85	0.1%	5.8%
Business and Management	\$104	\$943	\$1,047	0.5%	19.8%	\$0	\$1,079	\$1,079	1.7%	20.4%
Comm., Journalism & Library Sci	\$66	\$534	\$600	0.3%	88.6%	\$12	\$42	\$54	0.1%	0.0%
Social Work	\$20	\$28	\$48	0.0%	0.0%	\$373	\$642	\$1,015	1.6%	0.0%
Other Non-Science and Engin.	\$1,157	\$868	\$2,025	1.0%	16.2%	\$155	\$2,720	\$2,875	4.6%	23.0%
TOTAL, NON-SCI & ENG FIELDS	\$7,507	\$9,482	\$16,989	8.5%	24.6%	\$13,922	\$18,314	\$32,236	51.8%	46.7%
TOTAL, SCI & ENG FIELDS	\$102,682	\$80,528	\$183,210	91.5%	34.3%	\$14,544	\$15,477	\$30,021	48.2%	
GRAND TOTAL	\$110,189	\$90,010	\$200,199	100.0%		\$28,466	\$33,791	\$62,257	100.0%	

Source: Campus NSF HERD Surveys. All dollars are in thousands.

Note: Percent of Total is the percent each field represents of total campus or system R&D expenditures in all fields. Percent of Field is the percent of the UMass system's expenditures in a particular field represented by that campus.

FY 2014 Total R&D ExpenFY 2014 Total R&D Expenditures by Field (Federal and Non-Federal) – Cont'd

FIELD	UMD					UML				
	Federal	Non-Federal	UMD Total	% of UMD Total	% of Field	Federal	Non-Federal	UML Total	% of UML Total	% of Field
Engineering (Total)	\$2,945	\$5,972	\$8,917	31.6%	13.2%	\$4,740	\$8,800	\$13,540	21.0%	20.0%
Aeronautical & Astronomical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Bioengineering/Biomedical	\$1,320	\$718	\$2,038	7.2%	100.0%	\$0	\$0	\$0	0.0%	0.0%
Chemical	\$0	\$0	\$0	0.0%	0.0%	\$1,840	\$3,315	\$5,155	8.0%	25.7%
Civil	\$474	\$1,049	\$1,523	5.4%	12.8%	\$883	\$445	\$1,328	2.1%	11.2%
Electrical	\$891	\$1,601	\$2,492	8.8%	12.9%	\$1,112	\$1,828	\$2,940	4.6%	15.3%
Mechanical	\$260	\$907	\$1,167	4.1%	11.5%	\$905	\$1,327	\$2,232	3.5%	21.9%
Metallurgical & Materials	\$0	\$3	\$3	0.0%	0.6%	\$0	\$484	\$484	0.7%	99.4%
Other	\$0	\$1,694	\$1,694	6.0%	46.8%	\$0	\$1,401	\$1,401	2.2%	38.7%
Physical Sciences (Total)	\$836	\$2,061	\$2,897	10.3%	5.6%	\$10,311	\$5,062	\$15,373	23.8%	29.5%
Astronomy	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Chemistry	\$488	\$1,443	\$1,931	6.8%	7.0%	\$2,259	\$2,006	\$4,265	6.6%	15.6%
Physics	\$348	\$618	\$966	3.4%	4.5%	\$8,052	\$3,056	\$11,108	17.2%	51.6%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Environmental Sciences (Total)	\$3,479	\$5,333	\$8,812	31.2%	50.1%	\$184	\$233	\$417	0.6%	2.4%
Atmospheric	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Earth Sciences	\$0	\$0	\$0	0.0%	0.0%	\$184	\$229	\$413	0.6%	9.3%
Oceanography	\$3,479	\$5,333	\$8,812	31.2%	68.9%	\$0	\$4	\$4	0.0%	0.0%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Mathematical Sciences (Total)	\$251	\$279	\$530	1.9%	17.2%	\$98	\$351	\$449	0.7%	14.5%
Computer Sciences (Total)	\$53	\$87	\$140	0.5%	0.5%	\$2,528	\$1,785	\$4,313	6.7%	16.6%
Life Sciences (Total)	\$713	\$1,769	\$2,482	8.8%	0.7%	\$6,402	\$6,799	\$13,201	20.4%	3.9%
Agricultural	\$74	\$128	\$202	0.7%	0.8%	\$0	\$0	\$0	0.0%	0.0%
Biological	\$639	\$1,580	\$2,219	7.9%	2.0%	\$1,134	\$703	\$1,837	2.8%	1.7%
Medical	\$0	\$13	\$13	0.0%	0.0%	\$86	\$27	\$113	0.2%	0.1%
Other	\$0	\$48	\$48	0.2%	0.1%	\$5,182	\$6,069	\$11,251	17.4%	14.3%
Psychology (Total)	\$90	\$426	\$516	1.8%	5.0%	\$285	\$935	\$1,220	1.9%	11.9%
Social Sciences (Total)	\$12	\$1,150	\$1,162	4.1%	7.0%	\$1,326	\$2,756	\$4,082	6.3%	24.8%
Economics	\$0	\$261	\$261	0.9%	13.8%	\$39	\$582	\$621	1.0%	32.9%
Political Science	\$12	\$817	\$829	2.9%	15.1%	\$0	\$297	\$297	0.5%	5.4%
Sociology	\$0	\$72	\$72	0.3%	1.7%	\$0	\$319	\$319	0.5%	7.6%
Other	\$0	\$0	\$0	0.0%	0.0%	\$1,287	\$1,558	\$2,845	4.4%	57.9%
Other Sciences (Total)	\$34	\$389	\$423	1.5%	11.7%	\$0	\$0	\$0	0.0%	0.0%
TOTAL, SCI & ENG FIELDS	\$8,413	\$17,466	\$25,879	91.7%	4.8%	\$25,874	\$26,721	\$52,595	81.4%	9.9%
FIELD	Federal	Non-Federal	UMD Total	% of UMD		Federal	Non-Federal	UML Total	% of UML	
				Total	% of Field				Total	% of Field
Education	\$136	\$391	\$527	1.9%	1.2%	\$2,008	\$1,256	\$3,264	5.1%	7.3%
Law	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Humanities	\$0	\$64	\$64	0.2%	1.9%	\$0	\$684	\$684	1.1%	20.5%
Visual and Performing Arts	\$0	\$149	\$149	0.5%	10.2%	\$0	\$494	\$494	0.8%	33.7%
Business and Management	\$0	\$1,314	\$1,314	4.7%	24.9%	\$262	\$1,584	\$1,846	2.9%	34.9%
Comm., Journalism & Library Sci	\$0	\$0	\$0	0.0%	0.0%	\$13	\$10	\$23	0.0%	3.4%
Social Work	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%
Other Non-Science and Engin.	\$0	\$286	\$286	1.0%	2.3%	\$497	\$5,188	\$5,685	8.8%	45.5%
TOTAL, NON-SCI & ENG FIELDS	\$136	\$2,204	\$2,340	8.3%	3.4%	\$2,780	\$9,216	\$11,996	18.6%	17.4%
TOTAL, SCI & ENG FIELDS	\$8,413	\$17,466	\$25,879	91.7%	4.8%	\$25,874	\$26,721	\$52,595	81.4%	9.9%
GRAND TOTAL	\$8,549	\$19,670	\$28,219	100.0%		\$28,654	\$35,937	\$64,591	100.0%	

Source: Campus NSF HERD Surveys. All dollars are in thousands.

Note: Percent of Total is the percent each field represents of total campus or system R&D expenditures in all fields. Percent of Field is the percent of the UMass system's expenditures in a particular field represented by that campus.

FY 2014 Total R&D Expenditures by Field (Federal and Non-Federal) - Cont'd

FIELD	UMMS					UMPO					UMass System			
	Federal	Non-Federal	UMMS Total	% of UMMS	% of Field	Federal	Non-Federal	UMPO Total	% of UMPO	% of Field	Federal	Non-Federal	System Total	% of System
Engineering (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$33,312	\$34,245	\$67,557	11.2%
Aeronautical & Astronomical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%
Bioengineering/Biomedical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$1,320	\$718	\$2,038	0.3%
Chemical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$10,880	\$9,185	\$20,065	3.3%
Civil	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$5,106	\$6,803	\$11,909	2.0%
Electrical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$11,240	\$8,028	\$19,268	3.2%
Mechanical	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$4,690	\$5,482	\$10,172	1.7%
Metallurgical & Materials	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$0	\$487	\$487	0.1%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$76	\$3,542	\$3,618	0.6%
Physical Sciences (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$34,027	\$18,013	\$52,040	8.6%
Astronomy	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$2,264	\$861	\$3,125	0.5%
Chemistry	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$17,041	\$10,356	\$27,397	4.5%
Physics	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$14,722	\$6,796	\$21,518	3.6%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%
Environmental Sciences (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$154	\$154	2.6%	0.9%	\$9,104	\$8,472	\$17,576	2.9%
Atmospheric	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%
Earth Sciences	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$3,045	\$1,397	\$4,442	0.7%
Oceanography	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$6,031	\$6,763	\$12,794	2.1%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$154	\$154	0.0%	45.3%	\$28	\$312	\$340	0.1%
Mathematical Sciences (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$1,731	\$1,356	\$3,087	0.5%
Computer Sciences (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$17,452	\$8,496	\$25,948	4.3%
Life Sciences (Total)	\$183,582	\$58,287	\$241,869	100.0%	71.7%	\$135	\$0	\$135	2.3%	0.0%	\$229,028	\$108,330	\$337,358	55.9%
Agricultural	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$13,535	\$10,746	\$24,281	4.0%
Biological	\$60,890	\$19,279	\$80,169	33.1%	72.9%	\$0	\$0	\$0	0.0%	0.0%	\$77,573	\$32,450	\$110,023	18.2%
Medical	\$79,471	\$28,339	\$107,810	44.6%	86.8%	\$75	\$0	\$75	2.1%	0.1%	\$85,532	\$38,654	\$124,186	20.6%
Other	\$43,221	\$10,669	\$53,890	22.3%	68.3%	\$60	\$0	\$60	1.7%	0.1%	\$52,388	\$26,480	\$78,868	13.1%
Psychology (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$5,529	\$4,717	\$10,246	1.7%
Social Sciences (Total)	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$3,678	\$12,805	\$16,483	2.7%
Economics	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$211	\$1,676	\$1,887	0.3%
Political Science	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$181	\$5,312	\$5,493	0.9%
Sociology	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$1,310	\$2,878	\$4,188	0.7%
Other	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$1,976	\$2,939	\$4,915	0.8%
Other Sciences (Total)	\$0	\$0	\$0	0.0%	0.0%	\$50	\$0	\$50	0.9%	1.4%	\$1,419	\$2,199	\$3,618	0.6%
TOTAL, SCI & ENG FIELDS	\$183,582	\$58,287	\$241,869	100.0%	45.3%	\$185	\$154	\$339	5.8%	0.1%	\$335,280	\$198,633	\$533,913	88.5%
FIELD	Federal	Non-Federal	UMW Total	% of UMW	% of Field	Federal	Non-Federal	UMPO Total	% of UMPO	% of Field	Federal	Non-Federal	UMass Total	% of Total
Education	\$0	\$0	\$0	0.0%	0.0%	\$3,031	\$871	\$3,902	66.4%	8.7%	\$24,506	\$20,255	\$44,761	7.4%
Law	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$0	\$2	\$2	0.0%
Humanities	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$136	\$3,203	\$3,339	0.6%
Visual and Performing Arts	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$75	\$1,389	\$1,464	0.2%
Business and Management	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$366	\$4,920	\$5,286	0.9%
Comm., Journalism & Library Sci	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$91	\$586	\$677	0.1%
Social Work	\$0	\$0	\$0	0.0%	0.0%	\$0	\$0	\$0	0.0%	0.0%	\$393	\$670	\$1,063	0.0%
Other Non-Science and Engin.	\$0	\$0	\$0	0.0%	0.0%	\$252	\$1,382	\$1,634	27.8%	13.1%	\$2,061	\$10,444	\$12,505	2.1%
TOTAL, NON-SCI & ENG FIELDS	\$0	\$0	\$0	0.0%	0.0%	\$3,283	\$2,253	\$5,536	94.2%	8.0%	\$27,628	\$41,469	\$69,097	11.5%
TOTAL, SCI & ENG FIELDS	\$183,582	\$58,287	\$241,869	100.0%	45.3%	\$185	\$154	\$339	5.8%	0.1%	\$335,280	\$198,633	\$533,913	88.5%
GRAND TOTAL	\$183,582	\$58,287	\$241,869	100.0%		\$3,468	\$2,407	\$5,875	100.0%		\$362,908	\$240,102	\$603,010	100.0%

Source: Campus NSF HERD Surveys. All dollars are in thousands.

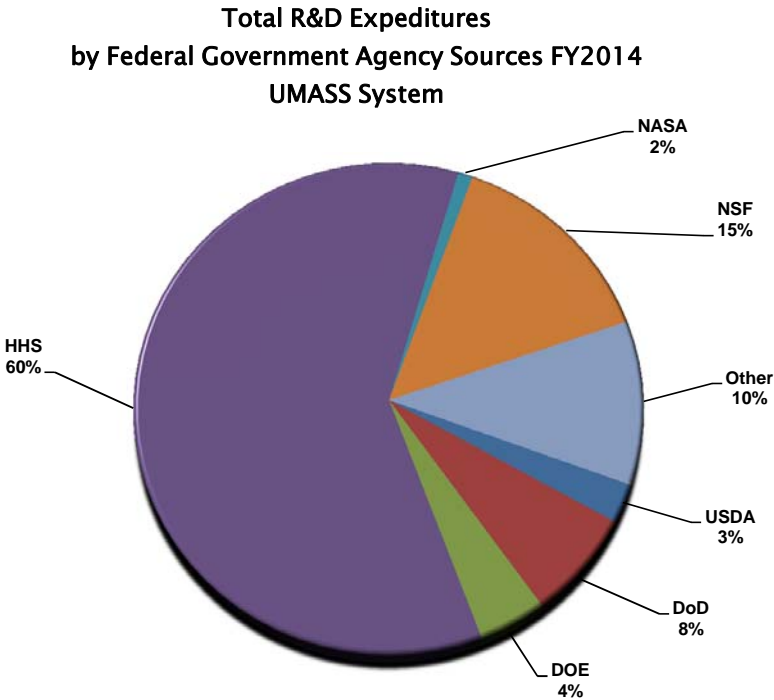
Note: Percent of Total is the percent each field represents of total campus or system R&D expenditures in all fields. Percent of Field is the percent of the UMass system's expenditures in a particular field represented by that campus.

B. R&D EXPENDITURES BY FIELD - ADDITIONAL CAMPUS DETAILS

1. With the exception of the last cycle, when the annual R&D growth rate declined slightly for some campuses, there has been consistent growth in R&D Expenditures over the past five years on all of the UMass campuses. Overall, growth has ranged from 4% to 18% between FY2010-FY2014 for the campuses. UMass Dartmouth and UMass Boston reflected a growth of 10% over this five-year period. UMass Amherst R&D Expenditures grew by 18% and UMass Lowell's by 9%. The UMass Medical School grew by 4%, and the UMass System as a whole reflected an overall growth of 11% in R&D Expenditures over the same time.
2. Each campus has its unique strengths in certain fields, as evidenced by their consistent national rankings in Top 100 institutions in a wide array of fields, including Computer Science, Engineering, Physical Science, Psychology, Environmental Science, Social Sciences, Mathematical Sciences, and Life Sciences. Together they create an extremely rich, strong, and diverse research program for the University system.
3. UMass Amherst reflects its strength in Computer Sciences, comprising 71% of the entire UMass System's R&D expenditures in this field, at over \$18M. In FY2013, UMass Amherst ranked **24th** among the first hundred institutions in total R&D Expenditures in the field of Computer Science (NSF Survey Rankings, Appendix F).
4. UMass Boston had the highest proportion of R&D Expenditures in Psychology and Education. In FY2014, UMass Boston R&D Expenditures in Social Sciences and Education comprised 40% and 59% (respectively) of the University total R&D expenditures in those fields.
5. UMass Dartmouth's prominence (among the UMass campuses) in Environmental Sciences is reflected by the fact that it comprises 50%, or \$9M of the total R&D Expenditures in this field. UMass Dartmouth has consistently ranked among the first hundred institutions for R&D Expenditures in the Environmental Sciences (NSF Survey). In FY2013, UMass Dartmouth ranked **70th** in this field (Appendix H).
6. Nearly two-thirds (65%) of UMass Lowell's R&D Expenditures in FY2013 were in the fields of Engineering, Life Sciences, and Physical Science. At \$14M, almost one-fifth of the University's R&D Expenditures in Engineering are sourced to the UMass Lowell campus. Nearly one-third (30% or \$15M) of the University's R&D Expenditures in Physical Sciences come from UMass Lowell as well.
7. For the UMass Medical School, 100% of R&D Expenditures is in the Life Sciences field. At \$242M, this comprises almost three-fourth's (72%) of the System total R&D Expenditures in the Life Sciences.

**B. 3. TOTAL R&D EXPENDITURES BY FEDERAL GOVERNMENT AGENCY SOURCES
(FY 2014)**

- 1. In FY2014, Total Federal R&D expenditures for the UMASS System was at \$363 million.
- 2. This comprises 60% of all R&D Expenditures for the UMASS System in FY2014.
- 3. In FY2014, the largest proportion of federal R&D Expenditures to the UMASS System came from the Department of Health and Human Services (60%), followed by the National Science Foundation (15%), Department of Defense (8%), Department of Energy (4%), Department of Agriculture (3%), NASA (2%). All Other federal sources comprised 10% of total federal R&D expenditures for UMASS.



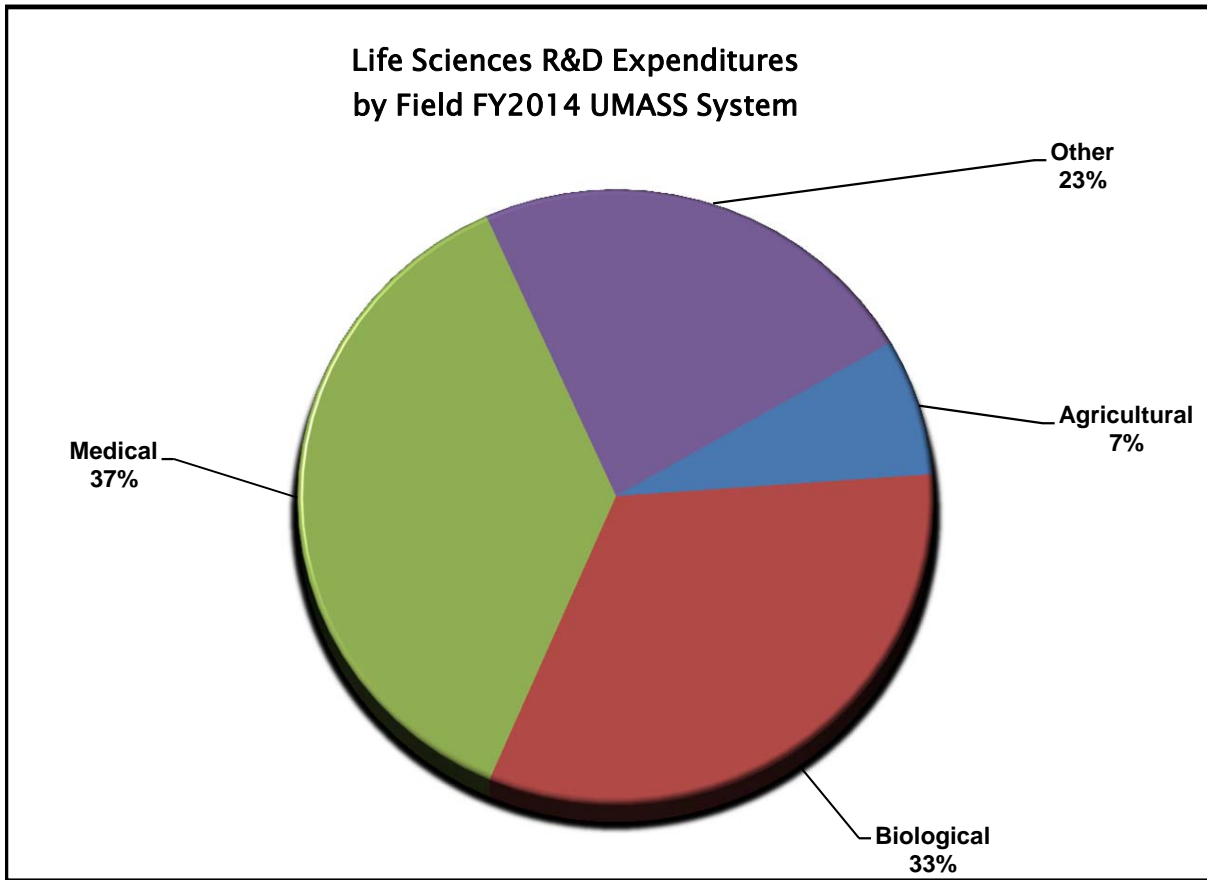
DOD - Department of Defense; DOE - Department of Energy; NASA - National Aeronautics and Space Administration; HHS - Health and Human Services; NSF - National Science Foundation; USDA - United States Department of Agriculture.

**C. LIFE SCIENCES
R&D EXPENDITURES**

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C. LIFE SCIENCES R&D EXPENDITURES

1. In FY 2014, R&D Expenditures in the Life Sciences for the UMASS System was at \$337.3 million, comprising well over half (56%) of total R&D Expenditures.
2. This represents a 12% increase from FY 2010, and a 3% increase from FY2013.
3. In FY 2014, 37% of all of the R&D Expenditures in the Life Sciences was within the Medical Sciences, followed by Biological Sciences (33%), Agricultural Sciences (7%), and all Others at (23%).



**Life Sciences R&D Expenditures by Field
FY2010 – FY2014**

(Dollars in Thousands)

	Total Life Sciences R&D									
	FY10	FY11	FY12	FY13	FY14	5-Year Change FY10 - FY14		1-Year Change FY13-FY14		
						\$	%	\$	%	
Amherst	\$51,326	\$58,946	\$61,999	\$60,743	\$69,749	\$18,423	36%	\$9,006	15%	
Boston	\$9,916	\$8,278	\$8,443	\$7,599	\$9,922	\$6	0%	\$2,323	31%	
Dartmouth	\$1,798	\$2,021	\$2,229	\$2,313	\$2,482	\$684	38%	\$169	7%	
Lowell	\$5,521	\$12,361	\$11,645	\$12,408	\$13,201	\$7,680	139%	\$793	6%	
Medical School	\$232,039	\$262,714	\$256,090	\$245,923	\$241,869	\$9,830	4%	-\$4,054	-2%	
President's Office			\$402	\$94	\$135	\$135	NA	\$41	44%	
System	\$300,600	\$344,320	\$340,808	\$329,080	\$337,358	\$36,758	12%	\$8,278	3%	

	Agricultural									
	FY09	FY10	FY11	FY12	FY14	5-Year Change FY10 - FY14		1-Year Change FY13-FY14		
						\$	%	\$	%	
Amherst	\$21,708	\$28,669	\$29,881	\$22,631	\$24,079	\$2,371	11%	\$1,448	6%	
Boston	\$0	\$0	\$0	\$0	\$0	\$0	NA	\$0	NA	
Dartmouth	\$645	\$946	\$1,170	\$809	\$202	-\$443	-69%	-\$607	-75%	
Lowell	\$0	\$0	\$0	\$0	\$0	\$0	NA	\$0	NA	
Medical School	\$0	\$0	\$0	\$0	\$0	\$0	NA	\$0	NA	
President's Office	NA	NA	\$0	\$0	\$0	NA	NA	\$0	NA	
System	\$22,353	\$29,615	\$31,051	\$23,440	\$24,281	\$1,928	9%	\$841	4%	

	Biological									
	FY10	FY11	FY12	FY13	FY14	5-Year Change FY10 - FY14		1-Year Change FY13-FY14		
						\$	%	\$	%	
Amherst	\$22,494	\$23,276	\$25,081	\$26,981	\$22,885	\$391	2%	-\$4,096	-15%	
Boston	\$2,537	\$2,581	\$2,773	\$2,592	\$2,913	\$376	15%	\$321	12%	
Dartmouth	\$1,120	\$1,004	\$938	\$1,503	\$2,219	\$1,099	98%	\$716	48%	
Lowell	\$1,281	\$1,553	\$1,999	\$1,470	\$1,837	\$556	43%	\$367	25%	
Medical School	\$77,718	\$88,359	\$91,140	\$77,287	\$80,169	\$2,451	3%	\$2,882	4%	
President's Office	NA	NA	\$0	\$0	\$0	NA	NA	\$0	NA	
System	\$105,150	\$116,773	\$121,931	\$109,833	\$110,023	\$4,873	5%	\$190	0%	

Note: UMA FY2010 figures have been revised since the FY2010 R&D Report Publication.

**Life Sciences R&D Expenditures by Field
FY2010 – FY2014**

(Dollars in Thousands)

Medical									
	FY10	FY11	FY12	FY13	FY14	5-Year Change FY10 - FY14		1-Year Change FY13-FY14	
						\$	%	\$	%
Amherst	\$6,411	\$6,473	\$6,276	\$9,661	\$13,881	\$7,470	117%	\$4,220	44%
Boston	\$4,697	\$4,675	\$4,345	\$812	\$2,294	-\$2,403	-51%	\$1,482	183%
Dartmouth	\$0	\$0	\$0	\$0	\$13	\$13	NA	\$13	NA
Lowell	\$0	\$252	\$0	\$47	\$113	\$113	NA	\$66	140%
Medical School	\$124,323	\$133,598	\$127,032	\$121,754	\$107,810	-\$16,513	-13%	-\$13,944	-11%
President's Office	NA	NA	\$263	\$44	\$75	NA	NA	\$31	NA
System	\$135,431	\$144,998	\$137,916	\$132,318	\$124,186	-\$11,245	-8%	-\$8,132	-6%

Other									
	FY10	FY11	FY12	FY13	FY14	5-Year Change FY10 - FY14		1-Year Change FY13-FY14	
						\$	%	\$	%
Amherst	\$713	\$528	\$761	\$1,470	\$8,904	\$8,191	1149%	\$7,434	506%
Boston	\$2,682	\$1,022	\$1,325	\$4,195	\$4,715	\$2,033	76%	\$520	12%
Dartmouth	\$33	\$71	\$121	\$1	\$48	\$15	45%	\$47	4700%
Lowell	\$4,240	\$10,556	\$9,646	\$10,891	\$11,251	\$7,011	165%	\$360	3%
Medical School	\$ 29,998	\$ 40,757	\$ 37,918	\$ 46,882	\$ 53,890	\$23,892	80%	\$7,008	15%
President's Office	NA	NA	\$139	\$50	\$60	NA	NA	\$10	20%
System	\$ 37,666	\$52,934	\$49,910	\$63,489	\$78,868	\$41,202	109%	\$15,379	24%

Source: Campus NSF surveys and WebCASPAR. All dollars are in thousands.

Note: UMA FY2010 figures have been revised since the FY2010 R&D Report Publication.

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APPENDICES A-P

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Appendix A1: UMass Total R&D Expenditures as Percent of US, New England, Massachusetts Figures: FY 2008–2013

(Dollars in Thousands)						
Division and state	2008	2009	2010	2011	2012	2013
United States	\$54,113,750	\$57,288,415	\$61,257,398	\$65,282,162	\$65,744,254	\$67,041,154
New England	\$3,995,165	\$4,249,189	\$4,649,376	\$4,991,415	\$5,308,745	\$5,649,493
Connecticut	\$754,792	\$777,963	\$888,949	\$945,705	\$946,289	\$1,059,367
Maine	\$151,762	\$156,851	\$137,516	\$139,983	\$120,072	\$104,573
Massachusetts	\$2,396,215	\$2,605,290	\$2,749,926	\$2,949,264	\$3,214,549	\$3,532,767
New Hampshire	\$310,721	\$309,144	\$311,455	\$359,839	\$366,337	\$354,296
Rhode Island	\$263,423	\$274,425	\$428,738	\$459,321	\$493,428	\$477,381
Vermont	\$118,252	\$125,516	\$132,792	\$137,303	\$120,226	\$121,109
U. MA Worcester	\$178,614	\$204,033	\$232,039	\$262,714	\$256,090	\$245,923
U. MA Amherst	\$156,817	\$160,666	\$169,141	\$181,297	\$194,775	\$190,739
U. MA Lowell	\$40,873	\$56,664	\$59,345	\$60,013	\$60,624	\$63,136
U. MA Dartmouth	\$20,925	\$20,669	\$25,725	\$25,644	\$22,732	\$27,326
U. MA Boston	\$38,018	\$47,028	\$56,416	\$57,040	\$60,086	\$60,380
U. MA President's Office	-	-	-	-	\$3,173	\$3,617
UMass System Total	\$435,247	\$489,060	\$542,666	\$586,708	\$597,480	\$591,121
As % of US	0.8%	0.9%	0.9%	0.9%	0.9%	0.9%
As % of New England	10.9%	11.5%	11.7%	11.8%	11.3%	10.5%
As % of MA	18.2%	18.8%	19.7%	19.9%	18.6%	16.7%

Appendix A2: UMass Total R&D Expenditures as Percent of US, New England, Massachusetts Figures by Field: FY 2013

(Dollars in Thousands)										
Division and State	Environmental sciences		Life sciences	Math and computer sciences	Physical sciences	Psychology	Social sciences	Sciences, nec	Engineering	All non-S&E fields
	United States	\$3,199,157	\$37,585,200	\$2,739,181	\$4,646,023	\$1,151,702	\$2,170,024	\$1,174,675	\$10,728,685	\$3,646,507
New England	\$420,253	\$2,668,970	\$217,499	\$416,338	\$98,323	\$206,212	\$218,231	\$922,624	\$481,043	
Connecticut	\$15,775	\$816,497	\$22,670	\$53,406	\$34,251	\$18,788	\$6,874	\$74,118	\$16,988	
Maine	\$17,235	\$41,509	\$2,773	\$4,629	\$428	\$5,974	\$11,313	\$19,512	\$1,200	
Massachusetts	\$262,762	\$1,408,673	\$153,612	\$318,038	\$49,569	\$152,757	\$174,173	\$726,541	\$286,642	
New Hampshire	\$64,155	\$175,245	\$7,696	\$11,297	\$4,332	\$8,053	\$5,805	\$58,935	\$18,778	
Rhode Island	\$58,871	\$134,469	\$28,719	\$25,870	\$6,137	\$19,625	\$12,422	\$34,765	\$156,503	
Vermont	\$1,455	\$92,577	\$2,029	\$3,098	\$3,606	\$1,015	\$7,644	\$8,753	\$932	
U. MA Worcester	\$0	\$245,923	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
U. MA Amherst	\$4,321	\$60,743	\$20,621	\$31,488	\$4,455	\$4,501	\$1,058	\$45,030	\$18,522	
U. MA Lowell	\$492	\$12,408	\$4,674	\$14,194	\$1,006	\$3,353	\$102	\$15,236	\$11,671	
U. MA Dartmouth	\$10,977	\$2,313	\$1,253	\$2,612	\$483	\$686	\$530	\$6,705	\$1,767	
U. MA Boston	\$3,340	\$7,599	\$2,483	\$1,434	\$3,866	\$10,802	\$0	\$351	\$30,505	
U. MA President's Office	\$0	\$94	\$0	\$0	\$0	\$0	\$37	\$0	\$3,486	
UMass System Total	\$19,130	\$329,080	\$29,031	\$49,728	\$9,810	\$19,342	\$1,727	\$67,322	\$65,951	
As % of US	0.6%	0.9%	1.1%	1.8%	0.2%	1.7%	0.1%	5.7%	0.6%	
As % of New England	4.6%	12.3%	13.3%	11.9%	10.0%	9.4%	0.8%	7.3%	13.7%	
As % of MA	7.3%	23.4%	18.9%	15.6%	19.8%	12.7%	1.0%	9.3%	23.0%	

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2013.

**Appendix B₁. Higher Education Total R&D expenditures, ranked by FY 2013 R&D expenditures:
FYs 2006–13 (Top 300 Insitutions)**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
	All institutions	49,645,341	51,590,017	54,113,750	57,288,415	61,257,398	65,282,162	65,744,254	67,041,154
1	Johns Hopkins U. ^a	1,512,066	1,566,392	1,691,469	1,866,243	2,004,482	2,145,308	2,106,185	2,168,568
2	U. MI, Ann Arbor	NA	NA	NA	NA	1,184,445	1,279,123	1,322,711	1,375,117
3	U. WA, Seattle	NA	NA	NA	NA	1,022,740	1,148,533	1,109,008	1,192,513
4	U. WI, Madison	904,787	912,219	944,626	1,013,649	1,029,295	1,111,642	1,169,779	1,123,501
5	U. CA, San Diego	757,157	801,823	844,877	883,653	943,219	1,009,378	1,073,864	1,075,554
6	U. CA, San Francisco	796,149	842,840	885,182	947,697	935,509	995,226	1,032,673	1,042,841
7	Harvard U.	506,987	493,920	505,832	525,452	583,361	649,774	799,432	1,012,766
8	Duke U.	658,783	783,784	769,893	807,652	983,289	1,022,207	1,009,911	992,821
9	U. NC, Chapel Hill	448,509	484,160	530,515	651,308	755,284	869,174	884,791	973,007
10	U. CA, Los Angeles	841,352	854,497	904,840	923,916	936,995	982,357	1,003,375	966,659
11	Stanford U.	692,263	702,497	698,883	717,022	839,839	907,971	903,238	945,450
12	MA Institute of Technology	623,343	637,621	682,058	759,649	677,138	723,610	824,130	900,524
13	Columbia U. in the City of New York	529,946	545,996	548,704	604,660	807,235	878,900	889,487	889,188
14	U. Pittsburgh, Pittsburgh	535,186	564,994	599,800	629,088	822,491	899,386	866,638	872,736
15	U. MN, Twin Cities	NA	NA	NA	NA	786,074	847,419	826,173	858,378
16	Cornell U.	650,592	645,791	655,641	672,692	749,721	781,651	802,387	845,184
17	PA State U., University Park and Hershey Medical Ct	NA	NA	NA	NA	770,449	794,846	797,679	837,880
18	U. PA	696,443	668,105	740,410	758,159	836,322	886,036	847,077	828,422
19	TX A&M U., College Station and Health Science Ctr.	508,787	565,631	604,526	651,923	689,624	705,720	693,421	820,015
20	OH State U.	663,012	737,324	726,302	743,591	755,194	832,126	766,513	793,373
21	Yale U.	462,080	451,318	490,913	512,997	623,510	656,967	656,555	788,784
22	U. IL, Urbana-Champaign	494,748	492,347	518,333	581,805	515,133	545,669	583,754	743,487
23	GA Institute of Technology	444,959	476,138	524,888	565,487	615,833	655,375	688,905	730,488
24	U. CA, Berkeley	563,837	570,252	620,374	682,568	694,049	707,945	730,348	727,002
25	U. CA, Davis	576,096	604,512	647,691	687,690	679,915	707,896	713,292	725,734
26	U. TX, M. D. Anderson Cancer Ctr.	457,696	496,539	558,503	578,788	599,529	663,279	685,814	718,096
27	U. FL	599,749	635,956	632,680	644,241	681,548	739,931	696,985	695,063
28	Washington U., St. Louis	551,333	575,846	566,378	630,141	695,974	725,039	706,410	684,847
29	U. Southern CA	475,696	528,466	540,366	556,807	592,791	603,294	623,544	645,636
30	Northwestern U.	449,782	473,060	518,572	555,510	575,078	618,980	631,078	639,781
31	U. TX, Austin	476,958	502,786	553,051	566,166	589,502	632,171	621,538	634,132
32	U. AZ	538,086	533,450	547,197	566,334	586,647	610,565	625,365	629,466
33	Purdue U., West Lafayette	NA	NA	NA	NA	548,980	578,231	602,501	595,739
34	Emory U.	349,867	412,503	463,317	459,067	529,453	547,316	565,766	575,943
35	Vanderbilt U.	389,026	415,750	444,873	455,835	504,959	566,031	560,466	571,603
36	MI State U.	388,845	395,611	392,242	405,961	431,373	454,248	507,061	515,707
37	Baylor C. of Medicine	462,375	438,280	449,301	449,031	447,874	466,061	474,700	508,799
38	VA Polytechnic Institute and State U.	325,318	370,805	375,773	399,433	398,169	450,058	454,417	496,169
39	U. UT	249,719	248,864	254,632	334,002	379,200	414,316	430,056	494,058
40	Rutgers, State U. NJ, New Brunswick	NA	NA	NA	NA	428,432	432,306	434,901	493,320
41	U. MD, College Park	368,989	371,696	405,569	417,365	451,415	495,382	502,406	491,998
42	NY U.	304,022	319,728	337,093	338,839	365,944	430,752	458,645	471,909
43	U. South FL, Tampa	NA	NA	NA	NA	385,029	394,963	443,206	459,409
44	U. AL, Birmingham	332,841	352,777	405,731	435,460	489,845	503,698	453,779	443,590
45	U. TX, Southwestern Medical Ctr., Dallas	333,237	341,090	390,349	402,087	419,220	431,883	435,085	440,620
46	U. Cincinnati	304,815	344,526	359,011	369,906	411,269	448,936	433,668	438,642
47	U. IA	356,169	374,905	300,422	334,937	444,034	443,893	446,429	435,377
48	U. MD, Baltimore	405,260	358,851	379,407	359,542	374,036	409,665	433,228	429,315
49	Icahn School of Medicine at Mt. Sinai	273,216	269,451	296,380	318,407	370,666	405,527	400,680	428,654
50	Case Western Reserve U.	374,714	379,347	420,441	418,012	418,164	429,206	431,090	425,788
51	NC State U.	330,936	333,027	367,422	383,193	360,795	378,154	404,225	417,468

**Appendix B₁. Higher Education Total R&D expenditures, ranked by FY 2013 R&D expenditures:
FYs 2006–13 (Top 300 Insitutions)**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
52	U. CO, Denver and Anschutz Medical Campus	260,292	264,739	269,805	364,659	389,461	417,587	431,977	409,443
53	AZ State U.	211,396	238,054	273,532	311,461	329,345	355,215	385,959	405,154
54	U. Chicago	308,557	325,161	360,047	381,194	437,721	453,562	419,631	402,621
55	Scripps Research Institute	367,375	360,511	366,047	382,275	387,298	400,768	398,673	399,899
56	U. Rochester	369,487	377,016	378,368	398,187	414,655	429,034	389,612	389,355
57	SUNY, Buffalo	304,757	323,417	339,575	349,423	349,670	353,172	360,226	387,863
58	U. CO, Boulder	254,805	267,314	272,191	299,892	349,449	390,677	392,004	385,849
59	U. VA, Charlottesville	NA	NA	NA	NA	276,308	398,096	383,359	385,828
60	SUNY, U. Albany, C. of Nanoscale Science and Engi	NA	NA	NA	NA	NA	248,778	265,473	374,174
61	Boston U.	261,632	253,899	259,045	284,507	352,817	355,916	334,496	368,281
62	U. IL, Chicago	337,180	344,815	339,704	347,118	362,939	380,828	388,625	367,848
63	Brown U.	195,710	175,623	182,596	187,380	335,838	344,090	365,120	361,010
64	U. GA	342,763	351,935	369,546	369,997	295,339	335,901	351,395	350,225
65	U. CA, Irvine	306,257	316,178	334,279	336,345	327,594	344,678	350,030	347,773
66	CA Institute of Technology	270,354	287,343	274,671	345,400	362,172	377,514	379,713	347,105
67	U. Miami	215,491	212,532	244,067	250,339	280,671	323,486	365,301	344,757
68	WA State U.	203,542	213,262	283,086	301,080	304,352	320,510	335,930	341,082
69	U. KY	337,646	348,835	345,355	360,254	359,944	372,932	360,776	339,764
70	IN U.-Purdue U., Indianapolis	NA	NA	NA	NA	296,194	322,617	316,914	332,760
71	U. HI, Manoa	250,694	266,447	271,835	290,707	303,085	318,316	312,311	326,750
72	CO State U., Ft. Collins	267,453	296,020	302,613	311,720	302,896	330,784	375,919	313,238
73	OR Health and Science U.	272,174	287,430	301,396	309,675	314,990	334,324	305,530	308,767
74	U. KS	214,768	219,535	227,433	236,544	267,961	274,727	286,262	298,498
75	Rockefeller U.	215,417	233,917	247,505	252,478	265,750	272,491	292,896	298,474
76	LA State U., Baton Rouge	256,248	266,895	280,081	294,780	289,872	287,841	285,395	283,400
77	Carnegie Mellon U.	213,338	198,139	210,988	217,687	222,790	242,882	255,933	271,277
78	Yeshiva U.	189,416	192,199	197,311	193,010	314,240	281,334	289,027	271,166
79	Princeton U.	195,148	198,945	204,489	212,510	242,570	263,335	275,666	269,908
80	IA State U.	227,585	221,002	228,167	228,526	250,120	267,641	260,995	266,596
81	U. NE, Lincoln	228,976	229,496	244,869	251,195	191,268	235,296	253,320	266,506
82	U. OK, Norman and Health Science Ctr.	186,349	187,454	204,765	213,720	218,089	249,297	240,974	255,674
83	FL State U.	209,857	211,310	211,557	237,794	227,329	230,411	225,378	250,877
84	U. MA, Medical School	156,452	157,469	178,614	204,033	232,039	262,714	256,090	245,923
85	Medical U. SC	176,055	184,624	189,369	216,778	224,632	213,346	236,586	245,451
86	U. CT	225,274	233,774	233,246	232,944	237,908	253,792	256,854	242,251
87	U. CA, Santa Barbara	179,857	200,504	214,441	227,221	225,730	230,435	233,883	236,497
88	U. MO, Columbia	231,170	244,429	251,894	253,527	238,500	230,957	239,810	236,423
89	U. TX, Health Science Ctr., Houston	175,154	191,724	197,252	217,623	240,772	261,172	236,250	233,256
90	OR State U.	227,693	231,895	233,358	257,564	216,595	228,814	240,507	232,677
91	U. NM	186,047	181,734	202,694	205,831	211,771	220,565	220,360	227,703
92	SUNY, Stony Brook U.	236,095	268,541	190,712	189,299	204,728	211,356	219,744	225,712
93	Wayne State U.	225,034	238,738	253,604	257,207	254,492	259,895	227,070	224,331
94	Temple U.	84,114	90,773	99,815	111,421	124,528	134,533	138,318	224,087
95	U. of Medicine and Dentistry of NJ	245,771	236,834	230,347	223,796	230,235	234,354	206,504	214,299
96	MS State U.	196,119	211,271	219,017	225,426	231,675	226,070	233,197	206,424
97	U. SC, Columbia	NA	NA	NA	NA	229,145	201,592	214,901	203,365
98	George Washington U.	135,931	149,413	181,688	103,793	196,917	197,621	196,448	202,428
99	Dartmouth C.	200,329	192,846	188,122	190,425	194,141	210,631	195,930	201,591
100	Medical C. WI	147,140	158,171	165,529	176,237	191,816	215,358	209,040	201,237
101	Woods Hole Oceanographic Institution	121,888	137,410	150,720	157,289	181,746	198,775	204,352	198,232
102	IN U., Bloomington	NA	NA	NA	NA	177,520	184,096	184,486	197,897
103	VA Commonwealth U.	167,748	151,197	171,637	162,283	197,709	207,756	201,366	196,015

**Appendix B₁. Higher Education Total R&D expenditures, ranked by FY 2013 R&D expenditures:
FYs 2006–13 (Top 300 Insitutions)**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
104	U. TN, Knoxville	NA	NA	NA	NA	150,671	167,456	179,252	193,054
105	U. MA, Amherst	140,184	146,323	156,817	160,666	169,141	181,297	194,775	190,739
106	U. Louisville	148,246	163,434	164,123	167,178	189,090	197,438	196,842	186,772
107	KS State U.	126,960	126,864	141,535	151,376	160,679	169,167	176,141	183,096
108	Wake Forest U.	183,843	186,175	200,750	201,701	192,034	209,134	204,328	182,721
109	Uniformed Services U. of the Health Sciences	67,716	71,307	106,179	192,268	134,126	175,365	151,392	181,737
110	U. TX, Medical Branch	179,915	183,492	180,026	184,845	188,399	193,555	180,888	180,198
111	U. DE	116,982	120,431	126,971	126,788	153,311	169,746	170,174	179,967
112	Georgetown U.	122,135	140,710	144,957	151,064	159,355	169,916	180,308	178,995
113	U. TX, Health Science Ctr., San Antonio	150,040	160,282	201,323	221,535	207,115	198,655	184,298	175,983
114	U. Notre Dame	82,137	82,272	103,311	104,866	110,369	134,410	157,691	175,220
115	WV U.	124,046	138,800	145,107	145,656	154,926	166,420	169,303	167,144
116	U. AK, Fairbanks	154,441	155,147	149,313	157,600	161,986	165,530	160,407	162,658
117	Tulane U.	118,828	140,321	165,678	163,572	165,513	171,703	164,373	160,414
118	UT State U.	142,935	142,784	148,257	145,240	149,169	174,167	157,355	158,352
119	Tufts U.	133,628	135,868	145,169	154,575	156,106	156,395	160,922	156,525
120	Clemson U.	184,940	216,959	200,789	193,924	174,693	166,350	142,096	152,444
121	U. CA, Santa Cruz	134,458	147,396	162,100	170,461	143,919	155,617	155,516	150,777
122	ND State U.	104,505	107,337	116,327	114,260	126,419	134,064	135,493	150,173
123	U. NH	121,952	120,463	121,092	117,546	115,562	143,002	165,156	147,446
124	Auburn U., Auburn	NA	NA	NA	NA	145,115	163,335	133,013	147,229
125	TX Tech U.	59,929	59,439	60,165	92,058	133,360	149,399	138,026	142,676
126	NM State U.	168,502	152,104	141,523	154,363	157,872	139,062	141,151	142,365
127	SUNY, U. Albany	277,841	309,438	271,187	341,624	359,364	148,625	137,758	137,759
128	U. NE, Medical Ctr.	108,012	111,751	112,887	123,629	138,219	133,036	141,619	137,485
129	OK State U., Stillwater	NA	NA	NA	NA	147,094	162,786	166,523	134,500
130	U. AR for Medical Sciences	107,871	108,551	117,440	106,314	119,518	122,066	129,056	133,677
131	U. CA, Riverside	135,603	139,960	139,319	139,536	130,288	132,238	135,494	132,617
132	Rice U.	67,045	72,112	74,720	79,431	97,903	110,235	117,223	131,003
133	U. Houston	80,984	78,381	87,691	102,917	119,811	113,709	116,288	130,844
134	FL International U.	84,697	108,015	107,025	101,322	110,271	110,006	118,058	128,070
135	U. Central FL	122,879	141,140	147,092	148,809	117,985	109,190	116,891	126,681
136	U. AR, Fayetteville	109,609	113,773	115,397	117,448	113,909	120,007	123,199	125,501
137	Northeastern U.	72,329	78,220	66,315	67,174	79,949	86,783	107,862	116,088
138	U. VT	122,814	114,172	116,463	122,991	129,856	132,356	115,697	115,485
139	MT State U., Bozeman	121,534	124,833	130,120	126,844	135,084	125,966	124,228	113,136
140	GA State U.	64,624	65,900	94,429	78,920	81,015	92,725	91,148	111,999
141	Drexel U.	97,675	98,010	103,558	105,020	118,349	115,020	116,768	111,432
142	U. MS and U. MS, Jackson, Medical Ctr.	105,029	117,522	99,413	100,102	110,020	122,765	121,731	108,168
143	NJ Institute of Technology	77,583	88,699	89,792	92,891	92,318	100,491	102,851	107,310
144	U. RI	70,696	76,237	78,871	84,989	90,016	102,630	114,323	101,898
145	Old Dominion U.	65,357	73,549	87,594	96,186	97,176	102,192	104,579	99,138
146	U. AL, Huntsville	61,831	73,760	75,818	74,340	75,683	75,724	87,388	98,963
147	U. TX, Dallas	44,198	46,477	59,300	65,804	82,044	93,230	90,700	98,842
148	George Mason U.	60,168	61,068	76,838	85,306	84,120	88,089	90,198	95,913
149	U. ID	88,284	83,690	82,489	89,242	87,207	96,229	97,227	95,891
150	Naval Postgraduate School	62,714	66,972	89,940	82,451	103,510	101,363	132,450	94,880
151	U. OR	66,602	71,362	78,934	86,371	94,107	103,019	105,030	94,522
152	Rensselaer Polytechnic Institute	71,382	77,679	77,967	78,188	83,952	84,834	92,720	92,495
153	U. NV, Reno	100,643	99,286	104,841	109,151	95,423	89,740	85,726	89,797
154	Thomas Jefferson U.	106,986	107,288	99,275	101,188	103,064	104,923	100,506	89,273
155	U. TX, Arlington	29,408	33,324	48,475	55,005	71,414	72,483	78,556	86,735

**Appendix B₁. Higher Education Total R&D expenditures, ranked by FY 2013 R&D expenditures:
FYs 2006–13 (Top 300 Insitutions)**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
156	San Diego State U.	83,398	74,686	81,385	91,074	99,137	106,591	92,867	86,733
157	U. Dayton	72,070	76,166	83,293	95,043	93,309	90,557	81,030	84,252
158	U. TX, El Paso	42,882	47,410	50,603	59,983	68,870	74,069	79,649	83,249
159	Rush U.	83,194	84,370	89,513	96,975	73,398	79,212	80,300	81,770
160	Cold Spring Harbor Lab.	ne	ne	ne	ne	ne	89,913	84,072	78,236
161	U. ME	93,867	100,072	96,755	101,344	111,282	111,600	92,135	77,583
162	Brandeis U.	59,250	58,925	51,686	65,586	71,006	74,889	74,660	76,060
163	SUNY, Binghamton U.	29,966	37,382	62,959	71,912	72,057	72,539	81,000	76,005
164	U. TN, Health Science Ctr.	NA	NA	NA	NA	81,904	81,220	77,754	71,902
165	U. MD, Baltimore County	68,205	71,201	72,057	81,056	87,156	91,657	74,993	71,819
166	Syracuse U.	53,784	58,342	62,098	79,950	107,024	83,686	85,649	70,967
167	Southern IL U., Carbondale	75,564	65,074	67,435	66,658	69,924	71,130	71,097	70,854
168	MI Technological U.	44,200	56,640	60,356	60,395	63,471	70,089	71,989	70,689
169	U. Akron	28,675	27,399	27,415	34,853	52,884	60,352	66,413	69,640
170	U. Toledo	32,745	54,342	61,082	67,464	70,399	74,149	68,228	69,072
171	U. ND	56,301	63,298	65,185	71,858	76,560	74,882	80,149	68,942
172	U. TN, Knoxville, Institute of Agriculture	NA	NA	NA	NA	59,212	62,786	68,480	67,887
173	U. CA, Office of the President	128,992	119,109	100,189	83,108	72,542	63,420	65,627	67,447
174	Cleveland State U.	16,076	17,819	15,027	14,345	34,235	55,502	61,111	67,378
175	U. WY	89,707	80,041	76,711	79,684	55,319	57,549	65,611	65,490
176	GA Regents U.	na	na	na	na	na	na	na	64,033
177	SD State U.	33,496	39,564	48,063	55,584	67,552	69,680	68,743	63,843
178	U. MA, Lowell	29,383	36,117	40,873	56,664	59,345	60,013	60,624	63,136
179	U. LA, Lafayette	55,427	60,203	65,462	75,474	69,412	69,978	65,275	61,887
180	TX Tech U., Health Sciences Ctr.	22,013	21,006	24,716	37,363	51,282	58,774	61,219	61,412
181	Wichita State U.	37,934	53,392	60,640	75,655	51,524	63,538	61,279	61,388
182	American U.	3,843	13,107	15,742	35,194	39,747	46,611	43,526	61,087
183	U. MA, Boston	22,347	37,441	38,018	47,028	56,416	57,040	60,086	60,380
184	U. MT, Missoula	53,333	56,119	58,557	59,791	63,540	60,159	59,313	60,189
185	OH U.	39,167	39,008	38,984	43,097	50,440	57,643	57,203	59,734
186	CO School of Mines	28,729	29,939	34,050	40,117	44,879	48,704	58,836	59,091
187	C. of William and Mary and VA Institute of Marine Sci	60,813	59,894	63,400	59,638	57,461	58,919	55,805	57,940
188	U.S. Air Force Academy	10,547	16,345	45,445	50,452	62,097	73,607	56,044	57,164
189	U. WI, Milwaukee	45,219	52,523	52,443	56,196	71,181	65,648	61,771	56,587
190	U. AL, Tuscaloosa	35,642	36,807	33,477	36,889	40,762	53,633	55,885	55,443
191	Portland State U.	32,308	30,203	35,705	44,574	56,533	58,975	58,489	55,435
192	CUNY, City C.	31,071	33,712	35,096	37,538	46,699	60,648	57,982	55,138
193	U. MD, Ctr. for Environmental Science	40,146	40,720	40,556	41,670	42,670	50,007	48,224	53,683
194	U. TX, San Antonio	32,317	32,321	34,601	46,521	56,279	58,667	57,233	53,626
195	U. Southern MS	40,845	48,595	47,582	47,205	42,059	46,591	60,079	51,962
196	Loyola U., Chicago	38,611	35,420	35,307	36,519	43,903	42,708	45,903	51,676
197	FL A&M U.	36,824	17,695	25,515	27,018	53,474	53,326	52,263	51,149
198	Boston C.	38,309	41,710	44,413	45,795	50,537	52,253	51,442	50,702
199	Wright State U.	47,749	49,798	47,803	48,215	48,575	48,501	46,213	50,489
200	U. North TX, Denton	18,285	15,981	18,066	24,120	31,496	42,475	46,943	49,518
201	LA State U., Health Sciences Ctr., New Orleans	79,927	91,498	60,007	59,111	59,776	57,007	53,712	49,443
202	St. Louis U.	48,248	56,921	59,236	38,075	46,839	53,179	49,086	48,231
203	U. Memphis	56,686	57,264	56,075	54,970	49,517	48,321	51,194	48,141
204	U. North TX, Health Science Ctr.	25,124	28,187	28,179	29,582	38,862	45,943	46,865	44,904
205	Eastern VA Medical School	33,013	31,453	30,777	36,678	44,420	36,569	37,745	44,183
206	U. PR, Medical Sciences Campus	38,424	38,863	35,570	41,668	39,134	64,017	45,649	43,374
207	Howard U.	36,817	38,583	38,010	34,714	40,080	42,341	45,486	42,789

**Appendix B₁. Higher Education Total R&D expenditures, ranked by FY 2013 R&D expenditures:
FYs 2006–13 (Top 300 Insitutions)**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
208	U. South AL	19,729	26,181	29,895	32,882	35,500	42,233	40,172	40,590
209	MO U. of Science and Technology	39,274	31,168	36,533	35,672	42,263	41,581	38,588	40,397
210	CUNY, Hunter C.	36,039	31,023	34,644	37,349	38,900	39,772	41,022	40,059
211	SUNY, Health Science Ctr. Brooklyn	31,064	29,809	32,299	29,184	32,512	41,993	43,257	39,354
212	San Jose State U.	49,267	47,256	52,408	55,213	38,241	40,149	34,727	38,326
213	East Carolina U.	14,539	16,372	16,880	24,922	23,995	28,114	31,990	38,271
214	Rutgers, State U. NJ, Newark	NA	NA	NA	NA	27,745	35,774	34,797	37,134
215	TX State U., San Marcos	9,496	10,320	19,309	24,497	30,560	33,487	36,664	37,053
216	IL Institute of Technology	24,654	26,740	25,289	25,709	36,554	44,463	32,576	36,722
217	Morehouse School of Medicine	28,378	27,886	27,077	27,392	30,669	33,946	37,586	36,638
218	Rochester Institute of Technology	24,703	24,106	27,025	33,393	38,663	34,889	36,935	36,613
219	Brigham Young U., Provo	30,013	29,635	28,988	29,901	32,997	37,142	33,843	36,562
220	Jackson State U.	38,273	36,888	42,739	44,884	44,862	49,998	46,943	36,264
221	U. NV, Las Vegas	58,618	57,768	53,320	41,652	44,457	39,526	34,543	35,935
222	SUNY, Upstate Medical U.	37,181	39,699	36,359	33,194	43,824	39,988	35,897	34,286
223	NC Agricultural and Technical State U.	23,948	24,138	29,036	28,615	35,297	34,930	35,103	33,994
224	San Francisco State U.	28,307	27,244	21,382	25,323	25,615	26,198	30,291	33,885
225	U. SD	22,892	21,473	22,742	34,690	30,616	28,959	31,982	33,187
226	Lehigh U.	35,046	38,307	38,190	34,352	37,332	32,086	31,992	33,071
227	AL A&M U.	14,431	13,672	8,959	14,752	30,497	32,063	32,312	32,937
228	NM Institute of Mining and Technology	73,792	83,742	79,437	81,742	51,696	43,857	37,875	32,499
229	Loma Linda U.	32,451	28,020	35,890	37,557	35,990	39,409	31,772	31,715
230	Northern AZ U.	27,892	27,030	26,160	26,723	28,803	30,785	28,100	30,516
231	Creighton U.	25,615	28,374	26,872	27,104	27,700	31,443	32,594	29,983
232	U. PR, Rio Piedras	22,623	22,345	35,665	31,592	30,515	32,582	33,099	29,234
233	U. PR, Mayaguez	22,337	21,738	20,094	20,991	26,475	34,424	32,115	29,225
234	Stevens Institute of Technology	33,600	34,383	30,493	28,660	35,544	41,622	31,929	28,908
235	Mercer U.	19,622	18,163	19,739	21,974	27,298	29,039	31,376	28,892
236	U. MO, Kansas City	27,572	30,944	28,892	28,657	30,163	32,769	29,227	28,829
237	LA State U., Medical Ctr., Shreveport	NA	NA	33,458	31,293	30,817	31,021	29,365	28,266
238	Desert Research Institute	38,511	40,238	38,045	36,490	34,367	35,331	33,056	27,695
239	Air Force Institute of Technology	19,394	17,173	20,527	27,458	31,259	31,879	32,746	27,592
240	U. MA, Dartmouth	20,389	20,120	20,925	20,669	25,725	25,644	22,732	27,326
241	Southern IL U., Edwardsville	42,457	44,650	47,268	49,139	31,781	33,736	26,992	25,807
242	Boise State U.	8,997	11,520	11,592	12,305	18,731	24,204	27,920	25,690
243	Worcester Polytechnic Institute	15,345	14,308	15,887	15,645	18,613	22,137	20,232	25,298
244	LA Tech U.	18,095	17,190	22,768	21,458	26,020	27,583	26,546	24,949
245	Polytechnic Institute of NY U.	24,329	23,766	13,673	9,547	10,601	13,222	21,413	24,851
246	U. NC, Charlotte	22,656	26,974	25,196	29,272	31,814	27,533	25,141	24,764
247	U. New Orleans	26,520	28,972	27,917	30,801	35,021	35,359	28,450	24,607
248	FL Atlantic U.	30,393	46,055	49,410	56,127	56,472	62,024	65,377	23,967
249	Miami U.	19,229	23,729	25,052	29,808	26,521	26,093	26,311	23,924
250	Catholic U. of America	18,412	20,484	20,767	20,400	21,454	25,397	24,971	23,235
251	Kent State U.	16,506	22,201	26,168	27,275	26,331	27,455	26,507	23,149
252	Northern IL U.	21,048	21,483	21,179	27,938	27,036	21,748	21,823	23,027
253	U. CA, Merced	7,931	11,600	17,403	22,013	21,591	21,328	22,656	22,909
254	Southern Methodist U.	15,823	16,985	22,902	16,741	18,742	24,453	24,397	22,544
255	Meharry Medical C.	32,878	33,218	34,152	26,587	27,001	29,055	25,559	22,532
256	ID State U.	17,119	20,569	21,627	21,405	20,495	21,450	21,179	22,147
257	U. Tulsa	13,209	16,218	15,576	13,769	23,387	19,489	20,270	21,757
258	U. MN, Duluth	NA	NA	NA	NA	21,150	23,400	21,530	21,383
259	SUNY, C. of Environmental Science and Forestry	17,954	23,854	26,359	20,513	26,916	28,289	28,509	21,239

**Appendix B₁. Higher Education Total R&D expenditures, ranked by FY 2013 R&D expenditures:
FYs 2006–13 (Top 300 Insitutions)**

(Dollars in Thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
260	Tuskegee U.	12,982	15,905	16,606	18,543	15,581	15,685	15,991	21,150
261	U. MO, St. Louis	13,587	13,214	14,374	15,665	14,628	18,461	19,356	20,869
262	Marquette U.	11,051	9,917	10,602	10,470	14,310	19,876	18,606	20,856
263	U. AK, Anchorage	16,520	14,751	13,353	13,400	16,709	18,620	20,194	20,255
264	NY Medical C.	34,397	34,365	31,644	30,584	28,400	27,316	23,277	20,243
265	U. of the VI	17,495	17,842	18,099	22,019	32,350	21,994	25,719	20,041
266	CUNY, Queens C.	7,462	9,840	11,989	13,115	16,845	23,219	22,399	19,762
267	Teachers C., Columbia U.	13,113	14,561	17,104	18,399	17,167	18,406	20,805	19,649
268	Marshall U.	19,957	22,755	23,022	23,645	24,501	26,723	18,998	19,617
269	U. West FL	13,376	14,903	14,137	13,288	17,757	21,710	16,221	19,332
270	U. Denver	14,585	14,178	14,657	16,727	15,748	17,004	15,237	19,262
271	Western MI U.	25,470	25,779	26,649	22,579	26,391	25,051	21,073	18,979
272	Fordham U.	12,525	13,268	16,492	15,676	19,289	18,350	19,311	18,822
273	TX A&M U., Kingsville	13,785	14,381	14,495	16,217	17,378	17,114	17,419	18,653
274	Charles R. Drew U. of Medicine and Science	47,188	52,118	49,224	57,604	22,152	22,150	20,580	18,547
275	CA State U., Fullerton	7,893	7,115	9,038	14,898	21,776	28,186	22,222	18,478
276	U. NC, Wilmington	14,212	17,603	20,326	18,287	23,143	22,593	19,722	18,145
277	GA Southern U.	6,332	6,600	4,204	4,739	3,704	3,912	5,719	18,069
278	IL State U.	6,298	7,528	7,110	8,727	18,417	17,833	17,760	17,589
279	TX A&M U., Corpus Christi	12,827	13,178	12,289	13,858	17,266	17,509	15,776	17,418
280	Rosalind Franklin U. of Medicine and Science	10,981	12,199	12,128	13,375	12,426	14,261	15,587	17,401
281	DE State U.	7,642	7,729	8,384	9,924	15,200	19,019	15,668	17,295
282	Oakland U.	9,554	9,038	9,812	11,275	12,856	15,868	18,194	16,767
283	Fayetteville State U.	632	8,124	8,647	10,541	11,865	14,618	15,719	16,698
284	U. NC, Greensboro	13,724	13,574	16,451	19,811	22,436	26,121	19,080	16,590
285	Embry-Riddle Aeronautical U.	10,628	7,930	7,004	10,899	12,189	16,289	19,376	16,484
286	Fisk U.	6,600	6,600	2,851	5,265	7,700	4,849	4,058	16,423
287	TN State U.	14,693	12,982	12,571	12,581	12,432	13,468	15,439	16,177
288	CA Polytechnic State U., San Luis Obispo	12,956	14,970	15,196	19,857	19,732	16,532	17,412	16,067
289	U. HI, Hilo	18,564	16,674	14,500	20,202	14,857	9,934	22,003	16,009
290	Duquesne U.	10,515	11,175	11,982	11,856	15,804	16,814	15,547	15,661
291	CA State U., Sacramento	212	183	4,718	14,461	15,207	16,344	14,053	15,564
292	Morgan State U.	13,523	11,257	12,336	12,433	12,804	12,803	17,751	15,475
293	Albany Medical C.	16,227	15,029	15,108	17,776	22,953	20,876	17,735	15,093
294	FL Gulf Coast U.	12,333	11,805	11,664	10,905	13,906	17,051	14,393	14,204
295	Baylor U.	8,105	10,794	12,655	14,035	10,925	12,343	10,161	13,616
296	FL Institute of Technology	8,990	7,732	9,232	11,523	12,054	14,523	17,100	13,298
297	Prairie View A&M U.	11,521	12,036	10,800	11,556	12,565	15,243	14,552	13,198
298	SC State U.	3,796	3,796	8,123	8,535	7,167	10,037	12,909	13,159
299	Bowling Green State U.	11,990	9,667	11,390	8,562	8,124	8,999	8,566	13,157
300	U. AR, Little Rock	9,331	9,598	9,866	10,650	11,007	12,039	10,500	13,107

e = estimated by institution. i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. NA = not available;

ory, with \$1,157,980 thousand in total R&D expenditures in FY 2013.

^p The majority of expenditures included under All other surveyed institutions for FY 2009 and earlier years is accounted for by multi-campus

NOTES: Prior to FY 2010, some institution totals for all R&D expenditures may be lower-bound estimates because the National Science Foundation

and Engineering Statistics, Higher Education Research and Development Survey.

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
	All institutions	44,870,141	24,705,288	3,257,075	11,194,141	2,318,760	2,272,801	1,122,076
1	U. MI, Ann Arbor	1,375,117	814,167	3,675	445,134	47,945	54,794	9,402
2	U. WA, Seattle	1,192,513	928,193	22,785	77,618	42,296	103,502	18,119
3	U. WI, Madison	1,123,501	555,875	75,451	397,820	22,168	45,601	26,586
4	U. CA, San Diego	1,075,554	632,593	44,509	153,937	68,668	115,199	60,648
5	U. CA, San Francisco	1,042,841	566,117	38,369	166,870	56,025	127,679	87,781
6	U. NC, Chapel Hill	973,007	623,237	21,985	222,706	28,529	63,143	13,407
7	U. CA, Los Angeles	966,659	501,368	39,660	176,790	52,855	105,018	90,968
8	U. Pittsburgh, Pittsburgh	872,736	622,232	11,474	127,149	12,589	28,735	70,557
9	U. MN, Twin Cities	858,378	494,206	56,118	237,321	28,795	21,432	20,506
10	PA State U., University Park and Hershey Medical Ctr.	837,880	558,871	49,465	155,612	34,878	34,417	4,637
11	TX A&M U., College Station and Health Science Ctr.	820,015	314,104	154,423	229,051	52,299	62,596	7,542
12	OH State U.	793,373	456,590	52,416	112,270	110,551	27,895	33,651
13	U. IL, Urbana-Champaign	743,487	468,798	31,858	168,080	42,101	14,957	17,693
14	GA Institute of Technology	730,488	522,134	11,520	132,945	46,187	6,054	11,648
15	U. CA, Berkeley	727,002	311,809	53,415	153,569	91,439	93,542	23,228
16	U. CA, Davis	725,734	347,038	61,443	175,550	43,636	66,813	31,254
17	U. TX, M. D. Anderson Cancer Ctr.	718,096	182,971	218,067	149,837	65,579	27,407	74,235
18	U. FL	695,063	296,199	91,870	245,554	25,032	28,764	7,644
19	U. TX, Austin	634,132	372,633	27,965	122,323	71,354	31,066	8,791
20	U. AZ	629,466	338,790	17,380	159,119	13,964	33,783	66,430
21	Purdue U., West Lafayette	595,739	271,504	66,881	182,237	38,595	30,210	6,312
22	MI State U.	515,707	260,610	42,045	176,901	7,497	14,219	14,435
23	VA Polytechnic Institute and State U.	496,169	201,646	115,664	146,324	26,129	2,615	3,791
24	U. UT	494,058	301,045	3,808	130,836	37,178	20,395	796
25	Rutgers, State U. NJ, New Brunswick	493,320	295,028	49,435	99,509	13,982	29,037	6,329
26	U. MD, College Park	491,998	342,778	14,232	116,748	7,124	4,434	6,682
27	U. South FL, Tampa	459,409	225,414	22,698	165,997	24,993	18,149	2,158
28	U. AL, Birmingham	443,590	290,082	1,033	110,489	23,597	18,389	0
29	U. TX, Southwestern Medical Ctr., Dallas	440,620	198,114	71,062	59,342	21,774	52,949	37,379
30	U. Cincinnati	438,642	258,460	6,107	113,816	22,189	37,944	126
31	U. IA	435,377	255,329	7,732	141,014	14,812	16,239	251
32	U. MD, Baltimore	429,315	242,108	22,135	110,898	8,462	43,090	2,622
33	NC State U.	417,468	177,118	76,662	110,943	46,415	5,809	521
34	U. CO, Denver and Anschutz Medical Campus	409,443	296,932	16,697	22,501	35,793	34,633	2,887
35	AZ State U.	405,154	201,363	22,980	149,857	12,242	16,258	2,454
36	SUNY, Buffalo	387,863	204,995	17,764	104,547	22,049	22,148	16,360
37	U. CO, Boulder	385,849	319,869	1,827	31,810	15,202	17,141	0
38	U. VA, Charlottesville	385,828	225,567	10,946	104,121	16,950	27,551	693
39	SUNY, U. Albany, C. of Nanoscale Science and Engineering	374,174	24,146	96,278	49,013	201,558	2,595	584
40	U. IL, Chicago	367,848	222,566	9,215	108,208	5,833	20,281	1,745
41	U. GA	350,225	131,824	28,815	158,858	5,260	20,294	5,174
42	U. CA, Irvine	347,773	198,730	18,392	56,231	27,173	37,443	9,804
43	WA State U.	341,082	134,329	58,490	122,888	14,065	7,997	3,313
44	U. KY	339,764	150,468	49,036	100,049	14,318	10,049	15,844
45	IN U.-Purdue U., Indianapolis	332,760	152,578	1,909	122,803	16,409	37,375	1,686

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
46	U. HI, Manoa	326,750	225,359	11,763	73,428	3,838	6,120	6,242
47	CO State U., Ft. Collins	313,238	219,856	14,143	46,468	12,792	13,797	6,182
48	OR Health and Science U.	308,767	246,491	55	23,662	16,198	22,089	272
49	U. KS	298,498	174,021	3,558	89,463	9,675	21,140	641
50	LA State U., Baton Rouge	283,400	94,563	71,886	93,317	16,020	6,320	1,294
51	IA State U.	266,596	121,993	35,447	80,386	17,571	8,159	3,040
52	U. NE, Lincoln	266,506	98,235	4,837	143,780	11,619	2,026	6,009
53	U. OK, Norman and Health Science Ctr.	255,674	132,456	30,712	71,627	7,811	7,202	5,866
54	FL State U.	250,877	148,413	5,184	84,554	1,430	10,662	634
55	U. MA, Medical School	245,923	189,159	804	31,516	8,795	14,948	701
56	Medical U. SC	245,451	127,472	4,312	83,888	15,080	8,120	6,579
57	U. CT	242,251	148,651	10,857	61,062	8,086	8,446	5,149
58	U. CA, Santa Barbara	236,497	132,960	5,537	36,950	30,535	28,957	1,558
59	U. MO, Columbia	236,423	111,510	3,077	103,283	7,280	9,455	1,818
60	U. TX, Health Science Ctr., Houston	233,256	144,235	28,907	21,211	10,990	17,807	10,106
61	OR State U.	232,677	149,396	38,151	25,301	6,448	2,044	11,337
62	U. NM	227,703	158,057	2,604	54,996	4,675	6,193	1,178
63	SUNY, Stony Brook U.	225,712	118,513	4,732	89,493	4,791	5,075	3,108
64	Wayne State U.	224,331	119,520	3,939	79,525	4,677	11,773	4,897
65	Temple U.	224,087	131,872	4,040	63,048	10,251	11,454	3,422
66	U. of Medicine and Dentistry of NJ	214,299	119,944	5,241	52,578	11,283	24,890	363
67	MS State U.	206,424	74,075	70,352	49,825	11,504	469	199
68	U. SC, Columbia	203,365	91,612	834	97,097	6,226	7,441	155
69	IN U., Bloomington	197,897	85,852	1,671	94,496	3,303	11,982	593
70	VA Commonwealth U.	196,015	135,804	7,133	38,476	6,498	8,104	0
71	U. TN, Knoxville	193,054	117,836	18,510	48,126	4,168	2,089	2,325
72	U. MA, Amherst	190,739	111,448	3,041	62,045	7,614	5,450	1,141
73	U. Louisville	186,772	78,144	12,647	65,266	8,238	6,093	16,384
74	KS State U.	183,096	70,167	40,068	58,318	4,993	5,719	3,831
75	Uniformed Services U. of the Health Sciences	181,737	137,152	0	40,865	0	0	3,720
76	U. TX, Medical Branch	180,198	108,287	2,592	53,477	2,854	12,988	0
77	U. DE	179,967	119,756	9,384	40,037	5,956	2,193	2,641
78	U. TX, Health Science Ctr., San Antonio	175,983	99,198	9,344	35,125	10,633	21,683	0
79	WV U.	167,144	74,704	12,231	65,008	5,028	2,799	7,374
80	U. AK, Fairbanks	162,658	94,953	9,718	48,457	5,850	1,655	2,025
81	UT State U.	158,352	106,985	30,799	9,461	5,685	699	4,723
82	Clemson U.	152,444	52,002	3,000	75,759	13,737	3,537	4,409
83	U. CA, Santa Cruz	150,777	91,002	3,419	28,041	8,872	15,296	4,147
84	ND State U.	150,173	38,453	48,791	55,806	1,064	1,180	4,879
85	U. NH	147,446	102,053	1,312	29,462	8,457	3,015	3,147
86	Auburn U., Auburn	147,229	57,253	27,932	50,769	5,824	1,147	4,304
87	TX Tech U.	142,676	28,827	16,989	82,132	6,926	7,722	80
88	NM State U.	142,365	86,806	17,717	24,687	3,609	2,068	7,478
89	SUNY, U. Albany	137,759	114,158	3,323	10,278	471	1,667	7,862
90	U. NE, Medical Ctr.	137,485	80,750	2,733	32,513	5,767	15,722	NA
91	OK State U., Stillwater	134,500	44,200	30,594	53,607	5,474	625	0
92	U. AR for Medical Sciences	133,677	64,856	3,481	48,845	1,198	0	15,297

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
93	U. CA, Riverside	132,617	59,065	9,757	38,603	8,059	8,999	8,134
94	U. Houston	130,844	61,038	30,048	23,211	10,049	5,895	603
95	FL International U.	128,070	72,357	8,626	40,626	3,480	2,543	438
96	U. Central FL	126,681	76,533	11,216	27,496	6,632	2,919	1,885
97	U. AR, Fayetteville	125,501	30,625	53,403	27,935	10,194	1,669	1,675
98	U. VT	115,485	85,118	189	23,702	2,344	3,326	806
99	MT State U., Bozeman	113,136	73,619	3,484	28,433	NA	NA	7,600
100	GA State U.	111,999	37,521	7,287	61,718	285	4,471	717
101	U. MS and U. MS, Jackson, Medical Ctr.	108,168	64,590	491	29,172	8,426	3,480	2,009
102	NJ Institute of Technology	107,310	57,466	2,729	40,592	2,992	3,405	126
103	U. RI	101,898	74,870	7,992	14,544	3,872	425	195
104	Old Dominion U.	99,138	39,963	3,424	53,044	1,975	564	168
105	U. AL, Huntsville	98,963	85,738	2,324	9,024	1,522	78	277
106	U. TX, Dallas	98,842	33,920	15,714	31,616	7,648	9,944	0
107	George Mason U.	95,913	65,096	1,593	23,688	1,368	3,707	461
108	U. ID	95,891	53,986	21,896	14,717	2,604	850	1,838
109	Naval Postgraduate School	94,880	91,134	264	1,901	665	69	847
110	U. OR	94,522	75,423	1,172	11,216	1,228	5,483	0
111	U. NV, Reno	89,797	56,900	3,500	25,852	1,145	1,489	911
112	U. TX, Arlington	86,735	30,815	11,771	35,615	3,285	782	4,467
113	San Diego State U.	86,733	51,274	5,554	26,736	333	2,713	123
114	U. TX, El Paso	83,249	38,253	17,403	15,755	2,577	954	8,307
115	U. ME	77,583	34,252	13,837	25,158	2,933	1,026	377
116	SUNY, Binghamton U.	76,005	17,715	2,317	51,484	3,598	315	576
117	U. TN, Health Science Ctr.	71,902	42,269	3,319	12,920	4,118	4,277	4,999
118	U. MD, Baltimore County	71,819	44,662	1,601	21,332	1,674	1,849	701
119	Southern IL U., Carbondale	70,854	18,398	3,058	35,763	9,248	2,728	1,659
120	MI Technological U.	70,689	32,086	330	32,751	4,774	421	327
121	U. Akron	69,640	19,658	5,749	30,895	3,238	4,312	5,788
122	U. Toledo	69,072	40,497	4,915	18,418	3,441	1,765	36
123	U. ND	68,942	46,491	6,941	4,776	9,474	818	442
124	U. TN, Knoxville, Institute of Agriculture	67,887	17,493	1,668	41,681	3,474	1,488	2,083
125	U. CA, Office of the President	67,447	599	20,385	38,755	0	7,602	106
126	Cleveland State U.	67,378	50,243	7,747	3,976	2,145	3,156	111
127	U. WY	65,490	53,971	6,454	1,641	2,332	433	659
128	GA Regents U.	64,033	47,913	0	8,087	2,646	5,141	246
129	SD State U.	63,843	33,231	15,009	7,478	1,088	4,792	2,245
130	U. MA, Lowell	63,136	27,360	3,288	26,208	4,303	1,115	862
131	U. LA, Lafayette	61,887	11,090	4,554	32,208	12,879	691	465
132	TX Tech U., Health Sciences Ctr.	61,412	14,820	30,930	9,580	817	2,240	3,025
133	Wichita State U.	61,388	13,434	8,740	11,570	27,534	110	0
134	U. MA, Boston	60,380	24,924	5,693	25,830	97	3,219	617
135	U. MT, Missoula	60,189	34,021	2,363	20,925	661	1,095	1,124
136	OH U.	59,734	20,203	2,391	29,992	5,174	1,856	118
137	CO School of Mines	59,091	32,399	2,759	2,432	17,062	3,188	1,251
138	C. of William and Mary and VA Institute of Marine Science	57,940	31,628	3,977	18,889	820	2,187	439
139	U.S. Air Force Academy	57,164	45,169	15	10,000	1,189	45	746

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
140	U. WI, Milwaukee	56,587	26,450	18,190	8,330	1,531	309	1,777
141	U. AL, Tuscaloosa	55,443	28,375	6,179	17,586	2,040	424	839
142	Portland State U.	55,435	40,377	3,415	6,434	875	3,743	591
143	CUNY, City C.	55,138	40,094	2,688	9,035	2,542	274	505
144	U. MD, Ctr. for Environmental Science	53,683	16,852	4,387	25,992	0	NA	6,452
145	U. TX, San Antonio	53,626	29,078	12,676	7,553	738	3,270	311
146	U. Southern MS	51,962	28,694	6,179	10,523	5,525	1,041	0
147	FL A&M U.	51,149	39,675	2,470	7,745	743	516	NA
148	Wright State U.	50,489	26,888	6,535	13,438	2,777	814	37
149	U. North TX, Denton	49,518	16,515	615	27,995	1,860	2,187	346
150	LA State U., Health Sciences Ctr., New Orleans	49,443	36,886	1,774	5,100	1,661	1,737	2,285
151	U. Memphis	48,141	18,619	3,477	23,015	1,126	1,438	466
152	U. North TX, Health Science Ctr.	44,904	24,187	7,398	9,238	3,053	822	206
153	U. PR, Medical Sciences Campus	43,374	31,037	2,582	7,119	1,490	1,146	0
154	U. South AL	40,590	13,743	194	25,032	1,621	0	0
155	MO U. of Science and Technology	40,397	25,571	112	9,909	4,036	369	400
156	CUNY, Hunter C.	40,059	22,512	1,358	12,507	1,192	1,961	529
157	SUNY, Health Science Ctr. Brooklyn	39,354	31,972	17	2,486	766	1,761	2,352
158	San Jose State U.	38,326	27,780	3,682	4,725	551	798	790
159	East Carolina U.	38,271	18,227	7,671	7,729	1,754	2,469	421
160	Rutgers, State U. NJ, Newark	37,134	16,295	7,676	7,752	631	4,167	613
161	TX State U., San Marcos	37,053	14,908	5,021	12,646	1,133	3,345	0
162	Jackson State U.	36,264	29,700	1,182	3,508	0	1,874	0
163	U. NV, Las Vegas	35,935	24,502	1,905	5,516	536	568	2,908
164	SUNY, Upstate Medical U.	34,286	23,730	536	5,136	2,090	2,392	402
165	NC Agricultural and Technical State U.	33,994	21,663	159	11,881	21	270	0
166	San Francisco State U.	33,885	19,024	1,508	11,531	179	1,611	32
167	U. SD	33,187	15,274	1,345	15,098	16	1,454	0
168	AL A&M U.	32,937	23,451	1,821	5,671	375	205	1,414
169	NM Institute of Mining and Technology	32,499	23,581	6,787	1,369	699	24	39
170	Northern AZ U.	30,516	15,638	4,945	5,762	552	2,648	971
171	U. PR, Rio Piedras	29,234	17,946	99	10,629	0	296	264
172	U. PR, Mayaguez	29,225	14,414	959	11,265	1,839	600	148
173	U. MO, Kansas City	28,829	15,774	110	9,856	870	1,058	1,161
174	LA State U., Medical Ctr., Shreveport	28,266	11,753	136	9,225	2,375	4,777	0
175	Desert Research Institute	27,695	22,814	1,484	2,221	245	931	0
176	Air Force Institute of Technology	27,592	18,739	21	8,727	105	0	0
177	U. MA, Dartmouth	27,326	8,860	1,462	16,280	425	208	91
178	Southern IL U., Edwardsville	25,807	3,209	337	18,725	3,503	33	0
179	Boise State U.	25,690	16,117	1,110	7,344	240	820	59
180	LA Tech U.	24,949	8,881	2,293	13,167	585	23	0
181	U. NC, Charlotte	24,764	20,994	905	351	1,640	724	150
182	U. New Orleans	24,607	11,051	3,310	7,591	886	1,017	752
183	FL Atlantic U.	23,967	13,555	1,075	3,852	1,455	3,166	864
184	Miami U.	23,924	12,676	1,200	8,693	719	377	259
185	Kent State U.	23,149	11,506	1,731	7,839	665	1,059	349
186	Northern IL U.	23,027	12,415	19	8,815	1,096	682	0

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
187	U. CA, Merced	22,909	10,983	1,011	9,030	321	445	1,119
188	ID State U.	22,147	13,206	117	7,231	930	556	107
189	U. MN, Duluth	21,383	7,264	3,700	9,570	414	161	274
190	SUNY, C. of Environmental Science and Forestry	21,239	8,382	2,156	8,975	899	702	125
191	U. MO, St. Louis	20,869	7,868	29	10,567	502	906	997
192	U. AK, Anchorage	20,255	9,686	2,987	6,250	642	664	26
193	U. of the VI	20,041	15,627	3,972	0	0	0	442
194	CUNY, Queens C.	19,762	15,443	1,050	2,780	149	303	37
195	Marshall U.	19,617	13,472	1,655	3,672	328	230	260
196	U. West FL	19,332	12,927	2,434	2,264	839	812	56
197	Western MI U.	18,979	12,322	113	3,789	1,253	425	1,077
198	TX A&M U., Kingsville	18,653	7,002	3,375	3,182	566	4,528	0
199	CA State U., Fullerton	18,478	11,716	2,125	3,722	85	769	61
200	U. NC, Wilmington	18,145	9,133	5,637	2,676	157	408	134
201	GA Southern U.	18,069	2,092	225	6,930	8,593	229	0
202	IL State U.	17,589	3,902	851	11,979	143	662	52
203	TX A&M U., Corpus Christi	17,418	6,129	3,758	3,194	1,383	2,790	164
204	DE State U.	17,295	11,837	653	4,650	155	0	0
205	Oakland U.	16,767	7,605	50	7,256	1,237	492	127
206	Fayetteville State U.	16,698	11,906	689	3,844	122	137	0
207	U. NC, Greensboro	16,590	13,658	1,409	221	594	708	0
208	TN State U.	16,177	9,872	737	5,063	484	21	0
209	CA Polytechnic State U., San Luis Obispo	16,067	10,280	2,305	1,368	1,176	886	52
210	U. HI, Hilo	16,009	15,391	49	32	25	142	370
211	CA State U., Sacramento	15,564	7,546	3,736	2,722	253	1,113	194
212	Morgan State U.	15,475	13,357	1,527	NA	528	20	43
213	FL Gulf Coast U.	14,204	4,800	1,681	242	5,422	2,059	0
214	Prairie View A&M U.	13,198	9,077	2,515	1,481	47	78	0
215	SC State U.	13,159	10,776	1,187	1,188	8	0	NA
216	Bowling Green State U.	13,157	9,323	232	2,554	124	50	874
217	U. AR, Little Rock	13,107	6,848	513	1,441	164	4,112	29
218	Central MI U.	12,879	5,464	128	6,313	240	519	215
219	CA State U., Long Beach	12,796	10,701	589	NA	511	389	606
220	Northeast OH Medical U.	12,722	5,244	773	4,924	40	1,730	11
221	Winthrop U.	12,495	7,451	1,126	3,860	0	58	0
222	SD School of Mines and Technology	12,156	7,853	1,641	1,290	166	223	983
223	CUNY, Graduate Ctr.	11,982	2,827	648	2,200	0	4,049	2,258
224	CA State U., San Bernardino	11,942	6,190	3,042	2,624	30	56	0
225	U. Southern ME	11,725	4,582	5,242	1,342	6	505	48
226	U.S. Military Academy	11,630	11,630	0	0	0	0	0
227	Alcorn State U.	11,315	8,321	240	2,419	247	88	0
228	MT Tech of U. MT	11,059	3,507	5,025	1,964	563	0	0
229	U.S. Naval Academy	10,816	10,482	0	278	15	38	3
230	AR State U., Jonesboro	10,463	6,360	3,001	975	118	9	0
231	RI C.	10,385	8,976	392	766	0	251	0
232	U. TX, Brownsville	10,385	8,733	684	845	0	123	0
233	Ball State U.	10,357	2,440	195	7,323	161	238	0

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
234	C. Charleston	10,224	6,385	308	2,652	142	699	38
235	Tarleton State U.	9,722	3,525	3,346	1,801	856	194	0
236	TN Technological U.	9,715	3,999	3,418	2,038	125	108	27
237	CA State U., Northridge	9,640	7,906	1,067	81	65	519	2
238	VA State U.	9,535	6,212	232	3,053	0	0	38
239	U. TX, Pan American	9,425	5,191	1,367	1,734	368	765	0
240	Western KY U.	9,322	4,279	345	4,378	9	303	8
241	Grand Valley State U.	9,202	2,675	98	3,567	29	2,344	489
242	U. NE, Omaha	9,181	5,693	323	2,888	86	173	18
243	NC Central U.	8,979	8,253	183	NA	176	367	NA
244	East TN State U.	8,919	6,909	106	459	491	954	0
245	U. AR, Pine Bluff	8,911	4,550	2,006	2,319	0	36	0
246	U. MD, Eastern Shore	8,826	8,511	97	0	0	0	218
247	CA State U., San Marcos	8,809	6,271	199	1,526	1	812	0
248	Purdue U., Calumet	8,259	4,255	523	2,255	955	254	17
249	Western WA U.	8,157	3,789	381	3,577	171	239	0
250	IN U.-Purdue U., Ft. Wayne	8,128	1,901	693	4,366	24	1,144	0
251	CUNY, Brooklyn C.	8,064	5,999	35	1,566	354	51	59
252	Humboldt State U.	8,025	2,829	1,663	1,652	828	459	594
253	U. TN, Chattanooga	7,844	2,056	823	3,946	69	141	809
254	CA State U., Fresno	7,682	2,682	2,789	1,897	119	195	0
255	CA State U., Los Angeles	7,659	7,065	0	229	0	365	0
256	CUNY, John Jay C. of Criminal Justice	7,355	3,546	0	1,076	949	1,491	293
257	CA State Polytechnic U., Pomona	6,988	2,996	954	2,230	622	186	0
258	Salisbury U.	6,959	2,342	2,294	1,643	183	497	0
259	U. South FL, St. Petersburg	6,905	3,031	18	3,247	155	454	0
260	U. MI, Dearborn	6,846	3,300	0	2,261	1,016	264	5
261	Lincoln U., Jefferson City	6,585	4,989	1,596	0	0	0	0
262	TX Southern U.	6,548	4,741	175	1,247	4	381	0
263	Norfolk State U.	6,431	5,523	132	0	0	0	776
264	CA State U., Monterey Bay	6,129	4,961	505	595	0	68	0
265	U. GU	6,043	5,554	152	278	33	26	0
266	National Defense U.	5,865	5,865	0	0	0	0	0
267	James Madison U.	5,835	4,617	269	319	NA	NA	630
268	Rutgers, State U. NJ, Camden	5,722	1,750	610	1,712	0	1,561	89
269	Middle TN State U.	5,718	2,585	109	2,607	231	61	125
270	KY State U.	5,605	3,906	1,596	22	15	66	0
271	Southern U. and A&M C., Agricultural Research and Extension Ctr.	5,530	3,481	2,016	33	0	0	0
272	West TX A&M U.	5,510	1,315	3,227	378	421	158	11
273	U. Baltimore	5,448	2,906	1,407	43	15	1,077	0
274	U. TX, Tyler	5,317	4,123	851	217	90	32	4

Appendix B₂. Higher Education R&D Expenditures at Public Institutions, Ranked by all R&D expenditures, By Source of Funds: FY 2013 (Top 300)

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
275	Kennesaw State U.	5,062	3,374	266	1,076	39	251	56
276	Langston U.	4,932	4,153	779	0	0	0	0
277	Southern U. and A&M C., Baton Rouge	4,920	4,191	73	617	39	0	0
278	U. CO, Colorado Springs	4,721	3,407	769	331	134	80	0
279	U. WA, Bothell	4,704	825	15	834	28	2,962	40
280	CA State U., Dominguez Hills	4,671	4,235	198	0	0	238	0
281	Stephen F. Austin State U.	4,612	1,836	2,003	540	123	59	51
282	Sam Houston State U.	4,608	2,360	627	1,465	2	124	30
283	Montclair State U.	4,568	3,410	73	668	194	223	0
284	Elizabeth City State U.	4,515	4,439	63	0	0	0	13
285	WV State U.	4,491	3,316	1,002	173	0	0	0
286	U. North FL	4,480	1,424	950	1,735	171	200	0
287	U. WI, Stevens Point	4,392	2,131	1,106	762	33	360	0
288	MO State U.	3,882	3,132	137	49	458	106	0
289	U. WI, La Crosse	3,796	1,240	1,036	708	340	29	443
290	Youngstown State U.	3,785	1,834	1,132	763	56	0	0
291	CUNY, C. Staten Island	3,691	1,311	540	868	535	238	199
292	Ft. Valley State U.	3,688	3,329	0	359	0	0	0
293	U. Northern IA	3,678	2,347	347	867	78	39	0
294	TX A&M International U.	3,674	868	904	298	142	1,443	19
295	SUNY, C. of Optometry	3,637	2,757	0	646	156	18	60
296	U. MA, central office	3,617	2,126	556	441	19	418	57
297	Rowan U.	3,407	1,926	313	620	504	43	1
298	Northwest Indian C.	3,247	2,216	30	615	0	386	0
299	SUNY, Farmingdale State C.	3,213	1,896	0	1,294	0	23	0
300	PA State U., Erie	3,203	1,353	501	1,048	147	154	0

data were not provided by institution.

NOTES: Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table B4.

Engineering Statistics, Higher Education Research and Development Survey, FY 2013.

† FY 2013, as of 31 July 2014.

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
	All institutions	30,908,742	31,240,581	32,100,859	33,442,570	37,477,100	40,770,789	40,151,011	39,470,157
1	Johns Hopkins U. ^a	1,319,214	1,374,029	1,463,709	1,597,205	1,737,261	1,884,025	1,857,580	1,898,927
2	U. WA, Seattle	NA	NA	NA	NA	829,885	948,976	909,652	928,193
3	U. MI, Ann Arbor	NA	NA	NA	NA	747,778	820,125	791,729	814,167
4	Stanford U.	542,316	537,232	511,649	481,439	593,016	656,114	636,348	652,472
5	U. PA	488,902	460,258	493,435	509,689	642,180	707,051	669,970	636,589
6	Columbia U. in the City of New York	451,187	459,748	461,029	491,837	572,213	645,233	645,573	635,987
7	U. CA, San Diego	463,913	475,821	491,160	511,790	580,279	636,879	656,891	632,593
8	U. NC, Chapel Hill	330,201	347,958	374,295	433,896	545,993	600,843	606,348	623,237
9	U. Pittsburgh, Pittsburgh	426,257	446,151	459,230	467,465	594,675	662,471	637,857	622,232
10	Harvard U.	443,065	419,113	418,765	426,813	474,899	543,097	589,860	594,392
11	Duke U.	414,859	459,605	452,200	439,187	514,084	585,262	587,268	581,695
12	U. CA, San Francisco	464,660	467,402	472,642	483,667	514,693	570,116	559,329	566,117
13	PA State U., University Park and Hershey Medical Ctr.	NA	NA	NA	NA	464,750	468,705	531,421	558,871
14	U. WI, Madison	513,120	489,986	481,259	514,875	545,189	593,633	580,661	555,875
15	GA Institute of Technology	259,139	261,127	281,829	323,738	372,122	427,867	484,212	522,134
16	Yale U.	349,969	350,933	376,314	380,576	475,794	519,844	518,184	503,227
17	U. CA, Los Angeles	492,626	498,742	480,779	477,817	538,521	563,560	539,054	501,368
18	U. MN, Twin Cities	NA	NA	NA	NA	426,359	489,480	485,462	494,206
19	MA Institute of Technology	481,471	482,014	501,531	539,160	457,575	489,080	496,132	490,809
20	U. IL, Urbana-Champaign	268,877	258,149	270,908	292,522	303,852	323,454	359,989	468,798
21	OH State U.	319,606	316,763	341,257	349,863	399,942	493,130	445,635	456,590
22	Cornell U.	391,130	368,468	359,407	363,695	448,085	476,583	472,673	445,116
23	Vanderbilt U.	308,597	323,504	347,415	353,587	397,656	458,173	448,948	445,044
24	U. Southern CA	341,966	359,306	351,761	378,391	408,564	453,283	443,842	437,813
25	Washington U., St. Louis	411,660	426,659	395,643	415,234	468,642	469,490	441,406	411,299
26	Northwestern U.	254,472	253,338	269,026	305,306	360,980	399,719	393,074	396,138
27	U. TX, Austin	294,832	314,131	351,541	335,519	350,308	355,437	354,873	372,633
28	Emory U.	268,095	271,938	291,742	295,951	336,986	369,982	361,165	365,121
29	Case Western Reserve U.	311,169	309,522	306,760	313,774	333,689	353,470	359,000	349,487
30	U. CA, Davis	248,573	257,597	269,952	297,140	332,325	362,976	358,577	347,038
31	U. MD, College Park	217,797	224,385	241,224	250,895	297,896	338,780	340,180	342,778
32	U. AZ	302,707	270,682	278,229	288,148	308,157	327,565	331,578	338,790
33	U. CO, Boulder	227,013	228,297	228,129	248,259	292,030	323,078	330,089	319,869
34	TX A&M U., College Station and Health Science Ctr.	214,197	237,842	257,559	272,087	288,173	291,812	269,460	314,104
35	U. CA, Berkeley	266,130	256,147	255,005	266,554	312,789	336,191	338,759	311,809
36	Scripps Research Institute	268,533	267,073	265,657	288,388	313,746	317,201	309,471	308,628
37	U. UT	175,089	175,034	171,913	192,489	227,021	264,234	273,150	301,045
38	NY U.	197,621	205,547	211,756	214,206	260,463	302,221	316,208	300,730
39	U. Chicago	256,442	264,461	287,164	304,575	352,728	372,288	336,125	300,718
40	U. Rochester	280,422	282,821	277,747	296,618	322,048	337,907	308,115	299,553
41	U. CO, Denver and Anschutz Medical Campus	222,889	216,799	215,519	266,137	285,126	307,395	315,685	296,932
42	U. FL	254,350	247,721	240,366	242,964	279,649	306,349	305,067	296,199
43	Rutgers, State U. NJ, New Brunswick	NA	NA	NA	NA	224,894	239,908	279,161	295,028
44	U. AL, Birmingham	294,259	269,943	304,107	302,697	325,103	344,164	306,210	290,082

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
45	Baylor C. of Medicine	287,679	263,146	262,498	267,130	284,072	295,529	268,753	285,230
46	CA Institute of Technology	248,646	255,088	244,944	308,230	328,522	342,945	326,701	282,823
47	Icahn School of Medicine at Mt. Sinai	224,911	221,397	253,319	264,914	302,770	296,835	271,722	277,517
48	Purdue U., West Lafayette	NA	NA	NA	NA	232,564	259,948	270,655	271,504
49	Boston U.	241,726	234,104	236,597	256,666	302,411	305,476	275,319	267,194
50	MI State U.	181,592	187,671	169,656	177,355	214,134	240,837	268,952	260,610
51	U. Cincinnati	202,306	219,625	221,738	229,504	262,513	287,182	267,691	258,460
52	U. IA	221,966	228,526	234,559	255,101	282,465	283,627	269,734	255,329
53	OR Health and Science U.	223,204	227,441	232,208	233,774	247,054	268,777	242,337	246,491
54	U. MD, Baltimore	186,160	164,211	169,026	169,081	208,246	229,706	231,886	242,108
55	U. VA, Charlottesville	NA	NA	NA	NA	228,917	252,928	240,254	225,567
56	U. South FL, Tampa	NA	NA	NA	NA	243,017	243,030	236,148	225,414
57	U. HI, Manoa	203,221	208,196	194,508	203,453	196,275	201,700	193,722	225,359
58	U. IL, Chicago	205,639	210,799	197,369	197,537	232,380	248,936	246,128	222,566
59	CO State U., Ft. Collins	193,630	217,145	214,958	217,590	211,297	236,566	252,286	219,856
60	Carnegie Mellon U.	185,390	168,486	171,347	170,260	179,386	200,967	209,522	215,560
61	U. Miami	151,892	149,309	168,036	174,074	197,824	225,352	224,172	205,870
62	SUNY, Buffalo	155,668	151,572	158,152	154,876	167,099	182,585	193,613	204,995
63	VA Polytechnic Institute and State U.	121,129	129,208	135,977	148,716	162,566	189,198	184,175	201,646
64	AZ State U.	113,324	118,276	130,343	142,037	172,202	185,766	194,376	201,363
65	U. CA, Irvine	170,336	170,611	179,527	178,138	194,559	209,117	206,985	198,730
66	U. TX, Southwestern Medical Ctr., Dallas	196,621	191,687	201,480	207,216	232,027	231,639	207,513	198,114
67	Yeshiva U.	153,785	147,941	143,866	137,108	163,399	197,032	201,397	193,831
68	U. MA, Medical School	136,141	131,226	145,113	145,834	178,293	208,244	202,149	189,159
69	U. TX, M. D. Anderson Cancer Ctr.	182,028	190,508	194,889	194,633	206,664	236,400	196,753	182,971
70	NC State U.	131,262	131,848	131,987	136,905	139,096	155,293	174,758	177,118
71	U. KS	127,180	125,300	128,306	134,257	147,598	162,721	171,043	174,021
72	Woods Hole Oceanographic Institution	101,631	112,754	117,587	127,378	153,066	165,819	161,115	158,672
73	U. NM	130,388	124,121	136,138	134,740	148,216	162,854	160,895	158,057
74	Princeton U.	118,757	121,095	125,917	130,006	150,261	163,438	161,591	156,541
75	Wake Forest U.	139,709	141,655	146,761	144,906	159,084	173,130	172,779	156,506
76	Dartmouth C.	140,482	128,164	122,318	134,694	118,271	131,583	147,421	155,209
77	IN U.-Purdue U., Indianapolis	NA	NA	NA	NA	148,672	156,607	166,825	152,578
78	U. KY	155,366	158,559	159,302	147,583	171,528	179,161	159,678	150,468
79	OR State U.	133,328	129,287	134,280	139,587	135,886	146,882	156,446	149,396
80	U. CT	126,914	126,829	122,651	124,385	132,169	144,280	153,264	148,651
81	FL State U.	121,944	124,050	121,901	127,104	134,794	140,850	140,419	148,413
82	U. TX, Health Science Ctr., Houston	122,870	131,879	129,277	135,087	150,324	156,790	146,424	144,235
83	Uniformed Services U. of the Health Sciences	39,461	37,275	67,345	124,314	72,125	117,781	110,276	137,152
84	VA Commonwealth U.	112,159	96,690	106,335	104,206	144,138	153,228	142,053	135,804
85	WA State U.	84,779	79,439	97,925	100,631	113,452	123,502	129,255	134,329
86	U. CA, Santa Barbara	107,686	113,335	113,298	115,453	129,457	136,244	136,352	132,960
87	U. OK, Norman and Health Science Ctr.	93,145	91,405	96,435	100,924	105,366	118,970	133,841	132,456
88	Temple U.	54,567	57,778	60,848	71,131	79,939	89,719	90,243	131,872
89	U. GA	96,444	107,060	105,541	109,382	119,486	137,255	137,710	131,824
90	Medical U. SC	104,057	101,402	102,187	113,789	131,650	143,464	136,907	127,472

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
91	Brown U.	96,922	96,288	96,233	94,485	127,087	128,628	131,994	126,559
92	IA State U.	107,422	98,917	104,550	97,975	109,461	117,522	118,242	121,993
93	George Washington U.	91,837	104,533	128,022	91,665	122,357	116,611	112,110	120,857
94	U. of Medicine and Dentistry of NJ	140,923	126,101	122,061	115,770	123,399	124,585	110,595	119,944
95	U. DE	81,066	84,189	86,005	88,357	105,454	118,673	117,072	119,756
96	Wayne State U.	118,623	114,720	116,266	117,395	132,166	134,735	126,915	119,520
97	SUNY, Stony Brook U.	112,973	111,316	106,419	107,430	120,146	125,102	123,383	118,513
98	U. TN, Knoxville	NA	NA	NA	NA	96,972	111,942	112,471	117,836
99	Medical C. WI	100,128	107,200	111,602	117,842	121,750	133,929	125,325	116,765
100	Georgetown U.	94,901	107,904	113,707	121,514	120,589	123,540	115,197	114,760
101	SUNY, U. Albany	106,588	105,776	108,994	97,007	124,324	125,189	112,989	114,158
102	Tufts U.	98,634	94,284	98,175	105,122	116,699	122,208	121,512	113,450
103	U. MO, Columbia	109,996	119,545	112,814	124,796	116,965	116,403	114,345	111,510
104	U. MA, Amherst	71,244	73,485	80,432	80,950	97,937	107,683	115,280	111,448
105	U. TX, Medical Branch	120,408	118,173	122,009	126,703	128,840	128,098	109,867	108,287
106	UT State U.	97,577	91,953	89,940	84,970	90,581	113,871	108,501	106,985
107	U. NH	91,165	86,287	87,431	84,993	84,553	106,806	119,451	102,053
108	U. TX, Health Science Ctr., San Antonio	95,110	95,610	121,758	129,399	121,723	121,200	106,177	99,198
109	U. NE, Lincoln	81,347	81,044	82,732	84,455	96,069	105,724	104,579	98,235
110	Tulane U.	84,196	98,612	109,561	109,659	106,872	111,007	101,360	97,994
111	U. AK, Fairbanks	99,277	101,219	97,356	92,244	99,657	105,469	99,674	94,953
112	LA State U., Baton Rouge	79,834	81,072	80,583	89,593	97,407	97,517	92,551	94,563
113	U. SC, Columbia	NA	NA	NA	NA	125,501	103,296	98,836	91,612
114	Naval Postgraduate School	59,636	65,946	88,846	81,330	93,605	94,278	127,049	91,134
115	U. CA, Santa Cruz	67,010	69,122	70,919	77,253	84,518	97,817	94,222	91,002
116	NM State U.	102,257	102,367	86,715	89,450	98,399	90,598	90,722	86,806
117	IN U., Bloomington	NA	NA	NA	NA	71,208	74,143	79,727	85,852
118	U. AL, Huntsville	46,365	50,504	49,030	55,152	73,075	72,665	78,528	85,738
119	Northeastern U.	38,484	38,843	38,861	40,031	59,074	67,938	77,667	85,170
120	U. VT	82,676	90,419	90,220	92,760	98,635	101,471	87,843	85,118
121	U. NE, Medical Ctr.	53,808	53,506	51,300	61,224	80,784	86,295	84,196	80,750
122	Rockefeller U.	93,742	86,728	81,557	73,906	88,705	97,710	84,616	80,384
123	Rice U.	54,038	54,662	55,177	56,524	69,395	78,730	76,964	80,075
124	U. Notre Dame	56,248	54,491	67,497	57,953	62,152	79,716	83,295	79,564
125	U. Louisville	71,920	78,070	74,581	78,614	93,260	96,010	89,976	78,144
126	U. Central FL	41,284	60,735	68,806	73,742	69,331	69,098	78,411	76,533
127	Drexel U.	68,915	67,467	65,868	68,514	77,438	83,702	87,860	76,187
128	U. OR	54,935	57,708	65,135	70,628	76,378	84,997	86,316	75,423
129	U. RI	46,898	52,561	51,791	58,762	62,981	78,303	83,754	74,870
130	WV U.	64,262	67,159	71,075	68,741	79,415	88,419	82,149	74,704
131	MS State U.	94,318	106,804	106,159	104,121	106,324	98,998	96,689	74,075
132	MT State U., Bozeman	83,355	82,917	78,728	81,208	93,100	87,528	86,511	73,619
133	FL International U.	58,158	62,366	60,045	57,371	62,580	65,446	69,402	72,357
134	KS State U.	53,558	48,383	54,491	59,444	68,560	76,953	77,689	70,167
135	U. Dayton	58,582	61,352	65,621	71,361	73,540	70,996	65,169	67,698
136	George Mason U.	45,126	48,452	52,908	60,694	63,011	65,301	63,786	65,096

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
137	U. AR for Medical Sciences	66,127	60,836	62,035	61,249	72,217	75,924	69,883	64,856
138	U. MS and U. MS, Jackson, Medical Ctr.	72,028	80,317	69,076	65,028	71,475	74,918	74,955	64,590
139	U. Houston	42,613	42,644	43,845	42,450	52,920	59,580	55,812	61,038
140	Rensselaer Polytechnic Institute	45,414	49,153	47,491	48,509	54,847	59,284	62,341	60,870
141	U. CA, Riverside	62,209	61,059	58,670	58,586	63,127	62,312	63,821	59,065
142	NJ Institute of Technology	35,489	41,330	40,087	42,656	50,051	54,250	59,398	57,466
143	Auburn U., Auburn	NA	NA	NA	NA	53,971	59,559	55,557	57,253
144	Rush U.	45,044	39,601	40,942	43,608	51,304	57,978	57,512	57,063
145	U. NV, Reno	64,959	63,924	66,777	64,720	58,115	57,220	55,437	56,900
146	Thomas Jefferson U.	82,551	81,545	76,034	73,152	77,817	80,027	68,976	56,247
147	U. ID	48,335	46,273	46,235	43,207	46,303	54,243	55,115	53,986
148	U. WY	26,060	25,579	29,018	30,144	45,323	48,932	57,441	53,971
149	Clemson U.	57,181	54,394	56,944	57,232	62,934	52,919	51,764	52,002
150	San Diego State U.	37,770	34,792	38,038	44,250	56,504	64,056	56,797	51,274
151	Cleveland State U.	6,087	6,282	5,496	4,356	25,024	42,575	46,645	50,243
152	GA Regents U.	na	na	na	na	na	na	na	47,913
153	U. ND	38,849	44,625	46,620	49,240	52,504	54,058	54,476	46,491
154	Brandeis U.	41,201	41,366	38,204	40,817	43,669	48,235	44,532	45,337
155	U.S. Air Force Academy	9,678	16,142	44,935	38,795	49,711	62,118	43,431	45,169
156	U. MD, Baltimore County	44,885	49,696	50,698	54,455	59,448	61,172	45,014	44,662
157	OK State U., Stillwater	NA	NA	NA	NA	56,998	81,855	85,876	44,200
158	U. TN, Health Science Ctr.	NA	NA	NA	NA	52,652	51,842	48,473	42,269
159	Cold Spring Harbor Lab.	ne	ne	ne	ne	ne	51,529	43,874	41,002
160	U. Toledo	17,649	32,801	29,676	29,707	38,389	44,881	41,072	40,497
161	Portland State U.	22,236	20,813	23,727	31,917	36,996	41,580	42,662	40,377
162	CUNY, City C.	21,902	21,866	22,027	23,238	32,900	40,595	39,572	40,094
163	Old Dominion U.	32,869	32,976	35,421	36,433	34,687	39,534	38,555	39,963
164	FL A&M U.	25,674	14,502	23,657	23,535	45,856	44,905	42,937	39,675
165	ND State U.	46,086	46,345	50,682	44,343	51,883	53,451	46,490	38,453
166	U. TX, El Paso	26,844	27,218	26,996	29,507	34,617	35,399	40,024	38,253
167	GA State U.	28,542	28,205	30,248	28,364	27,073	28,210	34,075	37,521
168	LA State U., Health Sciences Ctr., New Orleans	52,437	54,690	43,865	43,398	46,142	45,581	40,637	36,886
169	Morehouse School of Medicine	25,156	23,230	24,985	23,583	25,855	28,128	31,786	34,511
170	U. ME	41,751	44,919	41,740	47,785	50,163	59,800	39,661	34,252
171	U. MT, Missoula	33,096	33,953	34,497	36,888	40,760	38,565	35,984	34,021
172	Howard U.	35,125	34,251	35,873	31,938	33,017	36,060	37,690	33,966
173	U. TX, Dallas	19,954	17,783	21,383	26,244	30,754	33,216	35,297	33,920
174	SD State U.	12,793	17,064	20,929	24,356	38,368	41,904	41,975	33,231
175	Loyola U., Chicago	25,903	25,148	23,481	23,855	28,995	28,633	28,530	33,074
176	CO School of Mines	20,543	18,248	20,072	25,109	29,892	33,789	33,481	32,399
177	MI Technological U.	18,789	28,226	29,944	27,263	27,676	32,724	33,189	32,086
178	SUNY, Health Science Ctr. Brooklyn	25,184	23,232	25,299	22,849	25,023	33,964	34,884	31,972
179	St. Louis U.	45,183	49,588	49,434	33,736	33,728	38,323	35,873	31,645
180	C. of William and Mary and VA Institute of Marine Science	35,174	33,045	31,357	30,665	27,685	30,361	32,526	31,628
181	U. PR, Medical Sciences Campus	31,199	31,955	28,481	33,841	29,813	54,381	35,173	31,037

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
182	U. TX, Arlington	19,095	20,259	20,927	25,144	31,628	30,659	33,150	30,815
183	U. AR, Fayetteville	34,357	38,831	33,066	33,184	33,674	37,587	34,189	30,625
184	Jackson State U.	30,783	30,980	35,221	37,321	39,457	43,001	39,511	29,700
185	U. TX, San Antonio	21,463	21,669	22,574	26,966	28,717	31,972	32,672	29,078
186	TX Tech U.	23,171	23,961	21,392	25,651	35,970	35,191	29,969	28,827
187	Eastern VA Medical School	19,399	20,620	17,499	24,083	29,291	25,319	24,694	28,728
188	U. Southern MS	36,175	43,972	42,820	41,978	37,054	40,984	37,524	28,694
189	U. AL, Tuscaloosa	22,997	27,953	23,788	24,283	26,364	32,999	33,023	28,375
190	IL Institute of Technology	19,883	20,930	20,230	17,705	28,349	34,858	27,767	28,319
191	Boston C.	18,837	21,227	22,585	24,324	33,290	31,953	30,855	27,975
192	San Jose State U.	31,283	28,188	29,151	33,299	24,292	26,389	24,153	27,780
193	Syracuse U.	32,444	32,230	33,566	31,000	33,796	33,850	33,156	27,729
194	U. MA, Lowell	19,598	20,759	23,284	23,933	25,550	27,960	26,786	27,360
195	Wright State U.	22,430	22,229	21,315	22,789	24,785	27,422	25,552	26,888
196	U. WI, Milwaukee	20,650	23,982	21,710	24,868	29,042	30,479	28,862	26,450
197	Loma Linda U.	28,788	24,666	32,350	29,114	29,284	32,187	24,884	26,253
198	MO U. of Science and Technology	23,722	18,798	22,353	23,548	28,239	27,961	23,731	25,571
199	U. MA, Boston	9,131	16,104	17,149	18,378	24,527	26,958	33,275	24,924
200	Lehigh U.	19,648	23,559	22,739	19,724	23,721	22,390	23,312	24,831
201	Stevens Institute of Technology	25,223	26,800	20,461	20,620	29,370	32,570	27,420	24,812
202	U. NV, Las Vegas	43,200	49,347	42,314	32,033	32,441	30,457	25,068	24,502
203	U. North TX, Health Science Ctr.	19,183	19,203	19,818	20,215	25,847	26,132	26,627	24,187
204	SUNY, U. Albany, C. of Nanoscale Science and Engineering	NA	NA	NA	NA	NA	9,887	17,290	24,146
205	SUNY, Upstate Medical U.	27,247	27,933	23,117	21,828	27,959	28,663	27,013	23,730
206	Brigham Young U., Provo	20,607	19,436	19,819	20,800	22,115	24,273	22,069	23,639
207	NM Institute of Mining and Technology	47,901	69,050	64,322	61,178	42,243	37,316	29,894	23,581
208	AL A&M U.	7,537	8,467	5,566	10,265	22,154	23,988	23,778	23,451
209	Desert Research Institute	30,407	30,752	30,703	29,544	28,307	28,489	27,294	22,814
210	CUNY, Hunter C.	19,179	16,473	15,833	19,487	18,498	22,901	24,265	22,512
211	NC Agricultural and Technical State U.	16,093	15,453	18,506	18,550	23,883	22,652	22,477	21,663
212	Meharry Medical C.	30,914	31,263	31,035	23,829	24,302	26,779	23,467	21,135
213	U. NC, Charlotte	13,159	13,858	12,038	14,202	17,284	15,930	19,230	20,994
214	OH U.	19,630	18,641	18,274	16,783	18,466	23,051	20,780	20,203
215	U. Akron	11,517	11,277	9,362	11,030	12,107	12,962	16,768	19,658
216	Mercer U.	11,741	11,075	12,012	13,377	18,778	17,904	19,963	19,411
217	San Francisco State U.	17,800	12,430	10,149	13,249	15,601	17,337	17,075	19,024
218	Air Force Institute of Technology	5,579	6,774	8,274	12,197	15,474	20,196	19,579	18,739
219	U. Memphis	18,807	22,872	20,293	19,024	20,654	20,348	22,142	18,619
220	Southern IL U., Carbondale	20,108	17,724	17,499	19,223	22,209	23,696	22,055	18,398
221	Rochester Institute of Technology	15,361	14,572	15,597	19,707	23,254	20,396	19,394	18,379
222	East Carolina U.	10,771	10,472	11,351	17,633	16,113	19,675	17,838	18,227
223	U. PR, Rio Piedras	16,881	16,114	25,382	19,376	21,717	24,887	25,407	17,946
224	SUNY, Binghamton U.	12,322	15,207	15,497	18,119	20,979	21,244	21,162	17,715
225	U. TN, Knoxville, Institute of Agriculture	NA	NA	NA	NA	12,527	15,512	17,786	17,493
226	Catholic U. of America	13,561	15,533	15,223	16,029	15,878	19,890	17,608	17,310

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
227	Charles R. Drew U. of Medicine and Science	44,394	48,580	43,291	53,110	20,430	20,679	19,733	17,144
228	Worcester Polytechnic Institute	11,047	10,146	10,650	10,938	13,582	15,714	12,968	17,003
229	U. MD, Ctr. for Environmental Science	12,860	13,365	12,019	11,656	12,123	18,007	16,081	16,852
230	Tuskegee U.	10,256	12,562	13,165	14,700	12,309	12,397	12,633	16,789
231	U. North TX, Denton	9,009	7,815	9,045	10,870	14,444	14,754	18,043	16,515
232	Rutgers, State U. NJ, Newark	NA	NA	NA	NA	12,631	18,226	20,588	16,295
233	Boise State U.	8,346	10,345	9,370	9,938	14,614	18,811	20,070	16,117
234	U. MO, Kansas City	16,401	19,144	17,263	15,976	16,391	18,988	17,522	15,774
235	Northern AZ U.	14,445	12,409	13,310	13,345	15,070	17,765	16,015	15,638
236	U. of the VI	12,518	12,561	12,770	16,628	28,369	16,338	22,605	15,627
237	CUNY, Queens C.	6,422	7,676	9,245	9,519	13,642	15,573	14,897	15,443
238	U. HI, Hilo	16,962	14,962	11,481	14,907	12,265	7,150	20,726	15,391
239	U. SD	17,502	16,683	17,569	18,795	16,467	14,490	14,088	15,274
240	U. Denver	11,772	11,671	12,306	14,126	13,364	14,042	11,779	15,089
241	TX State U., San Marcos	1,930	3,091	3,237	8,312	8,904	10,319	11,950	14,908
242	TX Tech U., Health Sciences Ctr.	9,713	8,765	8,995	11,274	12,950	14,790	13,944	14,820
243	Polytechnic Institute of NY U.	11,486	10,329	6,050	5,384	5,729	7,831	12,687	14,460
244	U. PR, Mayaguez	11,645	12,366	11,913	12,673	12,735	18,568	19,949	14,414
245	Southern Methodist U.	11,705	13,117	13,123	11,254	13,312	18,502	16,640	14,274
246	NY Medical C.	26,579	26,101	23,107	22,253	21,095	21,013	16,471	13,806
247	U. South AL	15,567	16,676	15,907	15,883	14,730	16,758	13,816	13,743
248	U. NC, Greensboro	12,217	12,137	14,259	17,578	19,477	20,868	16,530	13,658
249	Creighton U.	10,505	11,716	10,722	12,196	11,850	14,140	14,270	13,569
250	FL Atlantic U.	20,590	18,157	17,780	15,335	17,268	15,579	17,226	13,555
251	Marshall U.	15,983	18,449	18,846	17,510	18,218	21,852	13,154	13,472
252	Wichita State U.	20,496	22,251	23,846	18,598	13,751	20,569	19,078	13,434
253	Morgan State U.	12,199	9,992	10,978	10,702	10,039	9,884	15,408	13,357
254	ID State U.	11,862	11,989	13,363	12,701	14,645	17,149	16,095	13,206
255	U. West FL	10,259	12,349	10,167	10,265	11,038	13,156	12,858	12,927
256	Miami U.	7,874	8,964	10,872	13,500	13,591	13,210	13,418	12,676
257	Hampton U.	28,584	23,836	20,910	12,662	14,455	12,292	15,356	12,620
258	Northern IL U.	11,794	13,123	11,639	17,225	17,334	11,807	12,861	12,415
259	Western MI U.	17,414	17,550	19,169	15,663	19,738	18,736	14,378	12,322
260	Fayetteville State U.	554	7,673	7,500	9,110	10,844	10,029	11,187	11,906
261	DE State U.	6,870	6,797	7,354	8,875	10,154	12,822	11,305	11,837
262	LA State U., Medical Ctr., Shreveport	NA	NA	14,009	14,106	13,890	15,316	13,504	11,753
263	CA State U., Fullerton	6,787	5,947	7,353	9,169	13,651	16,159	12,440	11,716
264	U.S. Military Academy	6,660	7,248	9,420	8,641	22,146	13,799	12,227	11,630
265	Kent State U.	11,053	11,813	13,784	14,748	14,586	15,085	14,882	11,506
266	Embry-Riddle Aeronautical U.	6,531	6,419	4,631	7,424	8,241	11,444	14,048	11,456
267	Ponce School of Medicine and Health Science	5,022	6,594	5,707	4,679	7,569	9,318	10,486	11,251
268	Rosalind Franklin U. of Medicine and Science	9,507	7,689	6,936	7,246	8,350	9,317	10,084	11,202
269	U. LA, Lafayette	11,819	11,099	13,079	13,641	12,881	14,659	13,848	11,090
270	U. New Orleans	13,478	15,628	14,346	15,078	19,244	19,000	14,521	11,051
271	U. CA, Merced	3,135	3,119	4,852	8,025	9,392	10,140	11,052	10,983

Appendix C. Federally Financed Higher Education R&D Expenditures, Ranked by FY 2013 R&D Expenditures: FYs 2006–13 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	2006	2007	2008	2009	2010	2011	2012	2013
272	SC State U.	2,587	2,587	6,766	7,037	6,334	8,630	10,926	10,776
273	CA State U., Long Beach	8,926	12,655	13,914	10,723	12,731	12,055	11,379	10,701
274	U.S. Naval Academy	6,739	7,806	8,928	10,450	10,750	10,243	9,322	10,482
275	American U.	2,066	8,383	10,424	10,023	8,841	9,208	7,515	10,421
276	CA Polytechnic State U., San Luis Obispo	6,761	5,678	7,770	12,284	11,637	8,658	10,125	10,280
277	Albany Medical C.	11,152	9,521	10,239	12,653	15,758	13,884	11,845	10,278
278	TN State U.	10,216	8,475	7,576	7,257	7,414	8,369	10,240	9,872
279	U. AK, Anchorage	8,225	6,214	6,541	6,673	9,368	9,858	10,760	9,686
280	Bowling Green State U.	6,185	6,530	5,984	4,285	4,963	6,164	7,005	9,323
281	Morehouse C.	5,517	4,935	4,822	6,993	7,857	8,460	9,063	9,226
282	U. NC, Wilmington	10,267	11,510	14,153	11,675	14,364	14,218	11,571	9,133
283	Prairie View A&M U.	9,138	9,230	7,659	7,676	8,623	11,058	10,569	9,077
284	RI C.	ne	ne	ne	ne	ne	2,404	9,060	8,976
285	LA Tech U.	5,826	4,309	6,646	8,431	10,806	11,952	9,835	8,881
286	U. MA, Dartmouth	9,893	11,843	13,543	10,804	12,236	13,657	10,979	8,860
287	Marquette U.	7,611	6,896	7,134	6,876	9,381	11,291	9,968	8,756
288	U. TX, Brownsville	ne	ne	4,371	4,641	5,640	6,122	7,098	8,733
289	U. MD, Eastern Shore	4,522	3,402	5,746	7,215	8,583	8,587	6,965	8,511
290	Teachers C., Columbia U.	6,985	7,662	7,622	7,357	6,533	8,526	10,173	8,494
291	Claremont Graduate U.	1,695	1,359	1,194	2,873	5,888	5,215	8,875	8,452
292	Fisk U.	6,000	6,600	2,851	5,265	7,686	4,631	4,058	8,439
293	SUNY, C. of Environmental Science and Forestry	7,831	7,842	9,239	7,853	8,907	9,645	9,560	8,382
294	Alcorn State U.	5,706	7,874	9,525	10,711	9,256	8,655	8,598	8,321
295	NC Central U.	6,597	4,337	6,323	5,055	6,870	9,496	11,076	8,253
296	CA State U., Northridge	8,966	11,874	11,372	11,686	17,213	19,769	24,837	7,906
297	U. MO, St. Louis	5,521	5,664	6,329	7,635	7,151	10,157	9,650	7,868
298	SD School of Mines and Technology	9,834	11,232	13,866	11,859	25,172	28,105	14,480	7,853
299	Dillard U.	1,423	3,724	1,473	5,621	7,096	7,211	7,325	7,692
300	Oakland U.	6,478	5,476	5,428	5,564	7,130	9,178	9,185	7,605

e = estimated by institution. i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. NA = not available; institution was not surveyed separately. ne = not eligible; institution did not meet the criteria for inclusion.

th \$1,116,838 thousand in federally financed R&D expenditures in FY 2013.

^o The majority of expenditures included under All other surveyed institutions for FY 2009 and earlier years is accounted for by multi-campus institutions that reported a single amount prior to FY 2010.

NOTES: Prior to FY 2010, some institution totals for all R&D expenditures may be lower-bound estimates because the National Science Foundation did not attempt to estimate for nonresponse on non-science and engineering R&D expenditures item prior to FY 2010. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

td Engineering Statistics, Higher Education Research and Development Survey.

e FY 2013, as of 31 July 2014.

Appendix D. Higher Education R&D Expenditures, Ranked by Total R&D Expenditures, for the Top 150 Institutions: FY 2013

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
	All institutions	67,041,154	39,470,157	3,657,725	14,973,923	3,501,308	3,860,093	1,577,948
1	Johns Hopkins U. ^a	2,168,568	1,898,927	6,727	88,307	47,131	122,375	5,101
2	U. MI, Ann Arbor	1,375,117	814,167	3,675	445,134	47,945	54,794	9,402
3	U. WA, Seattle	1,192,513	928,193	22,785	77,618	42,296	103,502	18,119
4	U. WI, Madison	1,123,501	555,875	75,451	397,820	22,168	45,601	26,586
5	U. CA, San Diego	1,075,554	632,593	44,509	153,937	68,668	115,199	60,648
6	U. CA, San Francisco	1,042,841	566,117	38,369	166,870	56,025	127,679	87,781
7	Harvard U.	1,012,766	594,392	2,960	263,816	38,268	97,971	15,359
8	Duke U.	992,821	581,695	1,930	136,952	177,057	64,881	30,306
9	U. NC, Chapel Hill	973,007	623,237	21,985	222,706	28,529	63,143	13,407
10	U. CA, Los Angeles	966,659	501,368	39,660	176,790	52,855	105,018	90,968
11	Stanford U.	945,450	652,472	37,104	91,365	71,277	83,813	9,419
12	MA Institute of Technology	900,524	490,809	224	84,685	122,050	86,408	116,348
13	Columbia U. in the City of New York	889,188	635,987	17,482	101,419	42,990	70,715	20,595
14	U. Pittsburgh, Pittsburgh	872,736	622,232	11,474	127,149	12,589	28,735	70,557
15	U. MN, Twin Cities	858,378	494,206	56,118	237,321	28,795	21,432	20,506
16	Cornell U.	845,184	445,116	69,682	191,099	29,214	81,185	28,888
17	PA State U., University Park and Hershey Medical Ctr.	837,880	558,871	49,465	155,612	34,878	34,417	4,637
18	U. PA	828,422	636,589	16,614	62,474	54,051	57,720	974
19	TX A&M U., College Station and Health Science Ctr.	820,015	314,104	154,423	229,051	52,299	62,596	7,542
20	OH State U.	793,373	456,590	52,416	112,270	110,551	27,895	33,651
21	Yale U.	788,784	503,227	6,401	190,162	32,318	53,739	2,937
22	U. IL, Urbana-Champaign	743,487	468,798	31,858	168,080	42,101	14,957	17,693
23	GA Institute of Technology	730,488	522,134	11,520	132,945	46,187	6,054	11,648
24	U. CA, Berkeley	727,002	311,809	53,415	153,569	91,439	93,542	23,228
25	U. CA, Davis	725,734	347,038	61,443	175,550	43,636	66,813	31,254
26	U. TX, M. D. Anderson Cancer Ctr.	718,096	182,971	218,067	149,837	65,579	27,407	74,235
27	U. FL	695,063	296,199	91,870	245,554	25,032	28,764	7,644
28	Washington U., St. Louis	684,847	411,299	18,328	118,331	44,275	81,929	10,685
29	U. Southern CA	645,636	437,813	16,832	81,038	28,611	35,570	45,772
30	Northwestern U.	639,781	396,138	2,566	162,165	16,301	62,611	NA
31	U. TX, Austin	634,132	372,633	27,965	122,323	71,354	31,066	8,791
32	U. AZ	629,466	338,790	17,380	159,119	13,964	33,783	66,430

Appendix D. Higher Education R&D Expenditures, Ranked by Total R&D Expenditures, for the Top 150 Institutions: FY 2013

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
33	Purdue U., West Lafayette	595,739	271,504	66,881	182,237	38,595	30,210	6,312
34	Emory U.	575,943	365,121	545	147,599	30,800	31,520	358
35	Vanderbilt U.	571,603	445,044	202	87,589	13,324	22,676	2,768
36	MI State U.	515,707	260,610	42,045	176,901	7,497	14,219	14,435
37	Baylor C. of Medicine	508,799	285,230	23,471	135,826	14,380	49,892	0
38	VA Polytechnic Institute and State U.	496,169	201,646	115,664	146,324	26,129	2,615	3,791
39	U. UT	494,058	301,045	3,808	130,836	37,178	20,395	796
40	Rutgers, State U. NJ, New Brunswick	493,320	295,028	49,435	99,509	13,982	29,037	6,329
41	U. MD, College Park	491,998	342,778	14,232	116,748	7,124	4,434	6,682
42	NY U.	471,909	300,730	6,083	80,891	21,239	42,748	20,218
43	U. South FL, Tampa	459,409	225,414	22,698	165,997	24,993	18,149	2,158
44	U. AL, Birmingham	443,590	290,082	1,033	110,489	23,597	18,389	0
45	U. TX, Southwestern Medical Ctr., Dallas	440,620	198,114	71,062	59,342	21,774	52,949	37,379
46	U. Cincinnati	438,642	258,460	6,107	113,816	22,189	37,944	126
47	U. IA	435,377	255,329	7,732	141,014	14,812	16,239	251
48	U. MD, Baltimore	429,315	242,108	22,135	110,898	8,462	43,090	2,622
49	Icahn School of Medicine at Mt. Sinai	428,654	277,517	3,522	78,121	29,302	39,450	742
50	Case Western Reserve U.	425,788	349,487	11,126	35,039	9,596	18,918	1,622
51	NC State U.	417,468	177,118	76,662	110,943	46,415	5,809	521
52	U. CO, Denver and Anschutz Medical Campus	409,443	296,932	16,697	22,501	35,793	34,633	2,887
53	AZ State U.	405,154	201,363	22,980	149,857	12,242	16,258	2,454
54	U. Chicago	402,621	300,718	1,360	38,351	21,820	39,787	585
55	Scripps Research Institute	399,899	308,628	8,166	50,832	18,052	14,221	0
56	U. Rochester	389,355	299,553	11,870	45,478	16,858	9,877	5,719
57	SUNY, Buffalo	387,863	204,995	17,764	104,547	22,049	22,148	16,360
58	U. CO, Boulder	385,849	319,869	1,827	31,810	15,202	17,141	0
59	U. VA, Charlottesville	385,828	225,567	10,946	104,121	16,950	27,551	693
60	SUNY, U. Albany, C. of Nanoscale Science and Engineering	374,174	24,146	96,278	49,013	201,558	2,595	584
61	Boston U.	368,281	267,194	194	76,482	4,633	13,940	5,838
62	U. IL, Chicago	367,848	222,566	9,215	108,208	5,833	20,281	1,745
63	Brown U.	361,010	126,559	1,299	197,459	3,182	25,440	7,071

Appendix D. Higher Education R&D Expenditures, Ranked by Total R&D Expenditures, for the Top 150 Institutions: FY 2013

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
64	U. GA	350,225	131,824	28,815	158,858	5,260	20,294	5,174
65	U. CA, Irvine	347,773	198,730	18,392	56,231	27,173	37,443	9,804
66	CA Institute of Technology	347,105	282,823	3,937	31,854	8,067	12,129	8,295
67	U. Miami	344,757	205,870	10,915	81,490	25,059	21,064	359
68	WA State U.	341,082	134,329	58,490	122,888	14,065	7,997	3,313
69	U. KY	339,764	150,468	49,036	100,049	14,318	10,049	15,844
70	IN U.-Purdue U., Indianapolis	332,760	152,578	1,909	122,803	16,409	37,375	1,686
71	U. HI, Manoa	326,750	225,359	11,763	73,428	3,838	6,120	6,242
72	CO State U., Ft. Collins	313,238	219,856	14,143	46,468	12,792	13,797	6,182
73	OR Health and Science U.	308,767	246,491	55	23,662	16,198	22,089	272
74	U. KS	298,498	174,021	3,558	89,463	9,675	21,140	641
75	Rockefeller U.	298,474	80,384	1,216	197,277	5,264	12,491	1,842
76	LA State U., Baton Rouge	283,400	94,563	71,886	93,317	16,020	6,320	1,294
77	Carnegie Mellon U.	271,277	215,560	1,606	13,140	24,610	4,370	11,991
78	Yeshiva U.	271,166	193,831	2,651	50,298	3,003	12,522	8,861
79	Princeton U.	269,908	156,541	561	83,043	10,428	17,550	1,785
80	IA State U.	266,596	121,993	35,447	80,386	17,571	8,159	3,040
81	U. NE, Lincoln	266,506	98,235	4,837	143,780	11,619	2,026	6,009
82	U. OK, Norman and Health Science Ctr.	255,674	132,456	30,712	71,627	7,811	7,202	5,866
83	FL State U.	250,877	148,413	5,184	84,554	1,430	10,662	634
84	U. MA, Medical School	245,923	189,159	804	31,516	8,795	14,948	701
85	Medical U. SC	245,451	127,472	4,312	83,888	15,080	8,120	6,579
86	U. CT	242,251	148,651	10,857	61,062	8,086	8,446	5,149
87	U. CA, Santa Barbara	236,497	132,960	5,537	36,950	30,535	28,957	1,558
88	U. MO, Columbia	236,423	111,510	3,077	103,283	7,280	9,455	1,818
89	U. TX, Health Science Ctr., Houston	233,256	144,235	28,907	21,211	10,990	17,807	10,106
90	OR State U.	232,677	149,396	38,151	25,301	6,448	2,044	11,337
91	U. NM	227,703	158,057	2,604	54,996	4,675	6,193	1,178
92	SUNY, Stony Brook U.	225,712	118,513	4,732	89,493	4,791	5,075	3,108
93	Wayne State U.	224,331	119,520	3,939	79,525	4,677	11,773	4,897
94	Temple U.	224,087	131,872	4,040	63,048	10,251	11,454	3,422
95	U. of Medicine and Dentistry of NJ	214,299	119,944	5,241	52,578	11,283	24,890	363
96	MS State U.	206,424	74,075	70,352	49,825	11,504	469	199

Appendix D. Higher Education R&D Expenditures, Ranked by Total R&D Expenditures, for the Top 150 Institutions: FY 2013

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
97	U. SC, Columbia	203,365	91,612	834	97,097	6,226	7,441	155
98	George Washington U.	202,428	120,857	1,006	48,435	1,980	29,698	452
99	Dartmouth C.	201,591	155,209	785	26,684	5,210	10,500	3,203
100	Medical C. WI	201,237	116,765	646	54,810	7,722	17,753	3,541
101	Woods Hole Oceanographic Institution	198,232	158,672	283	13,566	6,665	NA	19,046
102	IN U., Bloomington	197,897	85,852	1,671	94,496	3,303	11,982	593
103	VA Commonwealth U.	196,015	135,804	7,133	38,476	6,498	8,104	0
104	U. TN, Knoxville	193,054	117,836	18,510	48,126	4,168	2,089	2,325
105	U. MA, Amherst	190,739	111,448	3,041	62,045	7,614	5,450	1,141
106	U. Louisville	186,772	78,144	12,647	65,266	8,238	6,093	16,384
107	KS State U.	183,096	70,167	40,068	58,318	4,993	5,719	3,831
108	Wake Forest U.	182,721	156,506	6,016	3,613	11,759	4,823	4
109	Uniformed Services U. of the Health Sciences	181,737	137,152	0	40,865	0	0	3,720
110	U. TX, Medical Branch	180,198	108,287	2,592	53,477	2,854	12,988	0
111	U. DE	179,967	119,756	9,384	40,037	5,956	2,193	2,641
112	Georgetown U.	178,995	114,760	1,732	31,621	5,919	18,024	6,939
113	U. TX, Health Science Ctr., San Antonio	175,983	99,198	9,344	35,125	10,633	21,683	0
114	U. Notre Dame	175,220	79,564	266	66,802	5,287	11,308	11,993
115	WV U.	167,144	74,704	12,231	65,008	5,028	2,799	7,374
116	U. AK, Fairbanks	162,658	94,953	9,718	48,457	5,850	1,655	2,025
117	Tulane U.	160,414	97,994	3,255	31,964	6,487	9,833	10,881
118	UT State U.	158,352	106,985	30,799	9,461	5,685	699	4,723
119	Tufts U.	156,525	113,450	2,533	14,056	10,706	13,490	2,290
120	Clemson U.	152,444	52,002	3,000	75,759	13,737	3,537	4,409
121	U. CA, Santa Cruz	150,777	91,002	3,419	28,041	8,872	15,296	4,147
122	ND State U.	150,173	38,453	48,791	55,806	1,064	1,180	4,879
123	U. NH	147,446	102,053	1,312	29,462	8,457	3,015	3,147
124	Auburn U., Auburn	147,229	57,253	27,932	50,769	5,824	1,147	4,304
125	TX Tech U.	142,676	28,827	16,989	82,132	6,926	7,722	80
126	NM State U.	142,365	86,806	17,717	24,687	3,609	2,068	7,478
127	SUNY, U. Albany	137,759	114,158	3,323	10,278	471	1,667	7,862
128	U. NE, Medical Ctr.	137,485	80,750	2,733	32,513	5,767	15,722	NA
129	OK State U., Stillwater	134,500	44,200	30,594	53,607	5,474	625	0

Appendix D. Higher Education R&D Expenditures, Ranked by Total R&D Expenditures, for the Top 150 Institutions: FY 2013

(Dollars in thousands)

Rank	Institution	All R&D expenditures	Federal government	State and local government	Institution funds	Business	Nonprofit organizations	All other sources
130	U. AR for Medical Sciences	133,677	64,856	3,481	48,845	1,198	0	15,297
131	U. CA, Riverside	132,617	59,065	9,757	38,603	8,059	8,999	8,134
132	Rice U.	131,003	80,075	5,005	27,376	6,388	10,643	1,516
133	U. Houston	130,844	61,038	30,048	23,211	10,049	5,895	603
134	FL International U.	128,070	72,357	8,626	40,626	3,480	2,543	438
135	U. Central FL	126,681	76,533	11,216	27,496	6,632	2,919	1,885
136	U. AR, Fayetteville	125,501	30,625	53,403	27,935	10,194	1,669	1,675
137	Northeastern U.	116,088	85,170	1,375	22,999	4,780	1,764	0
138	U. VT	115,485	85,118	189	23,702	2,344	3,326	806
139	MT State U., Bozeman	113,136	73,619	3,484	28,433	NA	NA	7,600
140	GA State U.	111,999	37,521	7,287	61,718	285	4,471	717
141	Drexel U.	111,432	76,187	4,453	18,981	3,097	8,714	0
142	U. MS and U. MS, Jackson, Medical Ctr.	108,168	64,590	491	29,172	8,426	3,480	2,009
143	NJ Institute of Technology	107,310	57,466	2,729	40,592	2,992	3,405	126
144	U. RI	101,898	74,870	7,992	14,544	3,872	425	195
145	Old Dominion U.	99,138	39,963	3,424	53,044	1,975	564	168
146	U. AL, Huntsville	98,963	85,738	2,324	9,024	1,522	78	277
147	U. TX, Dallas	98,842	33,920	15,714	31,616	7,648	9,944	0
148	George Mason U.	95,913	65,096	1,593	23,688	1,368	3,707	461
149	U. ID	95,891	53,986	21,896	14,717	2,604	850	1,838
150	Naval Postgraduate School	94,880	91,134	264	1,901	665	69	847

data were not provided by institution.

ry, with \$1,157,980 thousand in total R&D expenditures in FY 2013.

NOTES: Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

ineering Statistics, Higher Education Research and Development Survey, FY 2013.

9 FY 2013, as of 31 July 2014.

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
	All institutions	44,238,259	22,802,895	67,041,154
1	Johns Hopkins U. ^a	1,547,027	621,541	2,168,568
2	MA Institute of Technology	900,524	0	900,524
3	U. WI, Madison	801,286	322,215	1,123,501
4	U. MI, Ann Arbor	801,252	573,865	1,375,117
5	TX A&M U., College Station and Health Science Ctr.	781,280	38,735	820,015
6	Harvard U.	750,580	262,186	1,012,766
7	U. IL, Urbana-Champaign	743,487	0	743,487
8	PA State U., University Park and Hershey Medical Ctr.	740,259	97,621	837,880
9	GA Institute of Technology	730,488	0	730,488
10	U. CA, Berkeley	727,002	0	727,002
11	U. TX, M. D. Anderson Cancer Ctr.	718,096	0	718,096
12	U. TX, Austin	634,132	0	634,132
13	U. WA, Seattle	628,761	563,752	1,192,513
14	U. MN, Twin Cities	613,217	245,161	858,378
15	Purdue U., West Lafayette	595,739	0	595,739
16	Cornell U.	585,808	259,376	845,184
17	U. CA, Davis	559,763	165,971	725,734
18	U. CA, San Diego	546,151	529,403	1,075,554
19	U. CA, Los Angeles	534,392	432,267	966,659
20	VA Polytechnic Institute and State U.	496,169	0	496,169
21	Rutgers, State U. NJ, New Brunswick	493,320	0	493,320
22	U. MD, College Park	491,998	0	491,998
23	OH State U.	485,357	308,016	793,373
24	Columbia U. in the City of New York	484,903	404,285	889,188
25	U. NC, Chapel Hill	473,427	499,580	973,007
26	U. AZ	470,283	159,183	629,466
27	MI State U.	462,991	52,716	515,707
28	U. FL	452,551	242,512	695,063
29	Stanford U.	435,534	509,916	945,450
30	NC State U.	417,468	0	417,468
31	AZ State U.	405,154	0	405,154
32	Scripps Research Institute	399,899	0	399,899
33	U. CO, Boulder	385,849	0	385,849
34	SUNY, U. Albany, C. of Nanoscale Science and Engineering	374,174	0	374,174

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
35	U. GA	350,225	0	350,225
36	CA Institute of Technology	347,105	0	347,105
37	WA State U.	341,082	0	341,082
38	U. Southern CA	320,482	325,154	645,636
39	Duke U.	315,709	677,112	992,821
40	CO State U., Ft. Collins	313,238	0	313,238
41	Rockefeller U.	298,474	0	298,474
42	U. UT	292,227	201,831	494,058
43	U. HI, Manoa	288,954	37,796	326,750
44	LA State U., Baton Rouge	283,400	0	283,400
45	U. Pittsburgh, Pittsburgh	272,926	599,810	872,736
46	Carnegie Mellon U.	271,277	0	271,277
47	Princeton U.	269,908	0	269,908
48	IA State U.	266,596	0	266,596
49	U. NE, Lincoln	266,506	0	266,506
50	U. PA	264,680	563,742	828,422
51	Brown U.	245,867	115,143	361,010
52	FL State U.	242,913	7,964	250,877
53	Emory U.	242,785	333,158	575,943
54	U. South FL, Tampa	241,304	218,105	459,409
55	U. CA, Santa Barbara	236,497	0	236,497
56	OR State U.	232,677	0	232,677
57	U. CA, Irvine	228,416	119,357	347,773
58	U. CA, San Francisco	217,908	824,933	1,042,841
59	Boston U.	215,659	152,622	368,281
60	U. KY	212,901	126,863	339,764
61	MS State U.	206,424	0	206,424
62	U. IL, Chicago	200,249	167,599	367,848
63	U. MO, Columbia	199,898	36,525	236,423
64	U. IA	199,043	236,334	435,377
65	SUNY, Buffalo	198,785	189,078	387,863
66	Woods Hole Oceanographic Institution	198,232	0	198,232
67	IN U., Bloomington	197,897	0	197,897
68	U. TN, Knoxville	193,054	0	193,054
69	U. MA, Amherst	190,739	0	190,739

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
70	U. SC, Columbia	190,483	12,882	203,365
71	KS State U.	183,096	0	183,096
72	U. DE	179,967	0	179,967
73	U. KS	175,501	122,997	298,498
74	U. Notre Dame	175,220	0	175,220
75	George Washington U.	169,686	32,742	202,428
76	Yale U.	165,344	623,440	788,784
77	U. OK, Norman and Health Science Ctr.	165,155	90,519	255,674
78	Northwestern U.	164,063	475,718	639,781
79	U. AK, Fairbanks	162,658	0	162,658
80	NY U.	159,640	312,269	471,909
81	UT State U.	158,352	0	158,352
82	U. VA, Charlottesville	156,093	229,735	385,828
83	U. CT	153,470	88,781	242,251
84	Vanderbilt U.	153,065	418,538	571,603
85	Clemson U.	152,444	0	152,444
86	U. CA, Santa Cruz	150,777	0	150,777
87	ND State U.	150,173	0	150,173
88	U. NM	148,520	79,183	227,703
89	U. Rochester	148,470	240,885	389,355
90	U. NH	147,446	0	147,446
91	Auburn U., Auburn	147,229	0	147,229
92	TX Tech U.	142,676	0	142,676
93	NM State U.	142,365	0	142,365
94	SUNY, U. Albany	137,759	0	137,759
95	Temple U.	136,444	87,643	224,087
96	OR Health and Science U.	135,416	173,351	308,767
97	WV U.	134,954	32,190	167,144
98	OK State U., Stillwater	134,500	0	134,500
99	U. CA, Riverside	132,617	0	132,617
100	Rice U.	131,003	0	131,003
101	U. Houston	130,844	0	130,844
102	U. Chicago	128,118	274,503	402,621
103	SUNY, Stony Brook U.	127,833	97,879	225,712
104	U. AR, Fayetteville	125,501	0	125,501

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
105	U. Central FL	123,290	3,391	126,681
106	FL International U.	121,607	6,463	128,070
107	Northeastern U.	116,088	0	116,088
108	U. AL, Birmingham	116,039	327,551	443,590
109	MT State U., Bozeman	113,136	0	113,136
110	GA State U.	111,999	0	111,999
111	Tulane U.	108,707	51,707	160,414
112	NJ Institute of Technology	107,310	0	107,310
113	U. TX, Health Science Ctr., Houston	106,967	126,289	233,256
114	Tufts U.	102,658	53,867	156,525
115	U. RI	101,898	0	101,898
116	VA Commonwealth U.	101,144	94,871	196,015
117	Old Dominion U.	99,138	0	99,138
118	U. AL, Huntsville	98,963	0	98,963
119	U. TX, Dallas	98,842	0	98,842
120	George Mason U.	95,913	0	95,913
121	U. ID	95,891	0	95,891
122	Naval Postgraduate School	94,880	0	94,880
123	U. OR	94,522	0	94,522
124	U. Miami	94,423	250,334	344,757
125	U. CO, Denver and Anschutz Medical Campus	93,945	315,498	409,443
126	Rensselaer Polytechnic Institute	92,495	0	92,495
127	U. Cincinnati	92,184	346,458	438,642
128	Washington U., St. Louis	92,123	592,724	684,847
129	U. TX, Arlington	86,735	0	86,735
130	San Diego State U.	86,733	0	86,733
131	U. Dayton	84,252	0	84,252
132	U. TX, El Paso	83,249	0	83,249
133	U. Louisville	79,262	107,510	186,772
134	Cold Spring Harbor Lab.	78,236	0	78,236
135	Case Western Reserve U.	77,698	348,090	425,788
136	U. MS and U. MS, Jackson, Medical Ctr.	77,628	30,540	108,168
137	U. ME	77,583	0	77,583
138	Brandeis U.	76,060	0	76,060
139	SUNY, Binghamton U.	76,005	0	76,005

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
140	U. MD, Baltimore	71,983	357,332	429,315
141	U. MD, Baltimore County	71,819	0	71,819
142	Syracuse U.	70,967	0	70,967
143	MI Technological U.	70,689	0	70,689
144	U. TX, Medical Branch	70,070	110,128	180,198
145	Drexel U.	69,959	41,473	111,432
146	U. Akron	69,640	0	69,640
147	U. NV, Reno	68,286	21,511	89,797
148	Wayne State U.	68,179	156,152	224,331
149	U. TN, Knoxville, Institute of Agriculture	67,887	0	67,887
150	U. CA, Office of the President	67,447	0	67,447
151	Cleveland State U.	67,378	0	67,378
152	U. WY	65,490	0	65,490
153	SD State U.	63,843	0	63,843
154	U. MA, Lowell	63,136	0	63,136
155	U. LA, Lafayette	61,887	0	61,887
156	Wichita State U.	61,388	0	61,388
157	American U.	61,087	0	61,087
158	U. MA, Boston	60,380	0	60,380
159	U. MT, Missoula	60,189	0	60,189
160	CO School of Mines	59,091	0	59,091
161	C. of William and Mary and VA Institute of Marine Science	57,940	0	57,940
162	U.S. Air Force Academy	57,164	0	57,164
163	U. WI, Milwaukee	56,587	0	56,587
164	U. ND	56,387	12,555	68,942
165	Dartmouth C.	56,340	145,251	201,591
166	U. NE, Medical Ctr.	56,130	81,355	137,485
167	U. AL, Tuscaloosa	55,443	0	55,443
168	Portland State U.	55,435	0	55,435
169	CUNY, City C.	55,138	0	55,138
170	OH U.	53,945	5,789	59,734
171	U. MD, Ctr. for Environmental Science	53,683	0	53,683
172	U. TX, San Antonio	53,626	0	53,626
173	IN U.-Purdue U., Indianapolis	52,792	279,968	332,760
174	U. Southern MS	51,962	0	51,962

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
175	FL A&M U.	51,149	0	51,149
176	Boston C.	50,702	0	50,702
177	U. North TX, Denton	49,518	0	49,518
178	U. Memphis	48,141	0	48,141
179	U. VT	46,028	69,457	115,485
180	Southern IL U., Carbondale	42,268	28,586	70,854
181	U. Toledo	41,145	27,927	69,072
182	MO U. of Science and Technology	40,397	0	40,397
183	CUNY, Hunter C.	40,059	0	40,059
184	U. North TX, Health Science Ctr.	39,387	5,517	44,904
185	San Jose State U.	38,326	0	38,326
186	Rutgers, State U. NJ, Newark	37,134	0	37,134
187	TX State U., San Marcos	37,053	0	37,053
188	IL Institute of Technology	36,722	0	36,722
189	Wright State U.	36,692	13,797	50,489
190	Rochester Institute of Technology	36,613	0	36,613
191	Brigham Young U., Provo	36,562	0	36,562
192	Georgetown U.	36,385	142,610	178,995
193	Jackson State U.	36,264	0	36,264
194	U. NV, Las Vegas	35,935	0	35,935
195	Medical U. SC	35,864	209,587	245,451
196	NC Agricultural and Technical State U.	33,994	0	33,994
197	San Francisco State U.	33,885	0	33,885
198	Lehigh U.	33,071	0	33,071
199	AL A&M U.	32,937	0	32,937
200	NM Institute of Mining and Technology	32,499	0	32,499
201	Northern AZ U.	30,516	0	30,516
202	U. TX, Health Science Ctr., San Antonio	30,131	145,852	175,983
203	U. PR, Rio Piedras	29,234	0	29,234
204	U. PR, Mayaguez	29,225	0	29,225
205	Stevens Institute of Technology	28,908	0	28,908
206	Desert Research Institute	27,695	0	27,695
207	Air Force Institute of Technology	27,592	0	27,592
208	U. MA, Dartmouth	27,326	0	27,326
209	U. PR, Medical Sciences Campus	27,261	16,113	43,374

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
210	Southern IL U., Edwardsville	25,807	0	25,807
211	Boise State U.	25,690	0	25,690
212	St. Louis U.	25,609	22,622	48,231
213	Worcester Polytechnic Institute	25,298	0	25,298
214	LA Tech U.	24,949	0	24,949
215	Polytechnic Institute of NY U.	24,851	0	24,851
216	U. NC, Charlotte	24,764	0	24,764
217	Mercer U.	24,742	4,150	28,892
218	U. New Orleans	24,607	0	24,607
219	Miami U.	23,924	0	23,924
220	U. SD	23,753	9,434	33,187
221	U. MO, Kansas City	23,747	5,082	28,829
222	Catholic U. of America	23,235	0	23,235
223	Kent State U.	23,149	0	23,149
224	Northern IL U.	23,027	0	23,027
225	U. CA, Merced	22,909	0	22,909
226	Howard U.	22,906	19,883	42,789
227	Southern Methodist U.	22,544	0	22,544
228	U. South AL	22,173	18,417	40,590
229	ID State U.	22,147	0	22,147
230	U. Tulsa	21,757	0	21,757
231	U. MN, Duluth	21,383	0	21,383
232	SUNY, C. of Environmental Science and Forestry	21,239	0	21,239
233	Tuskegee U.	21,150	0	21,150
234	U. MO, St. Louis	20,869	0	20,869
235	Marquette U.	20,856	0	20,856
236	U. AK, Anchorage	20,255	0	20,255
237	U. of the VI	20,041	0	20,041
238	FL Atlantic U.	19,996	3,971	23,967
239	CUNY, Queens C.	19,762	0	19,762
240	Teachers C., Columbia U.	19,649	0	19,649
241	U. West FL	19,332	0	19,332
242	U. Denver	19,262	0	19,262
243	U. TX, Southwestern Medical Ctr., Dallas	19,255	421,365	440,620
244	Western MI U.	18,979	0	18,979

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
245	Fordham U.	18,822	0	18,822
246	TX A&M U., Kingsville	18,653	0	18,653
247	CA State U., Fullerton	18,478	0	18,478
248	U. NC, Wilmington	18,145	0	18,145
249	GA Southern U.	18,069	0	18,069
250	IL State U.	17,589	0	17,589
251	TX A&M U., Corpus Christi	17,418	0	17,418
252	DE State U.	17,295	0	17,295
253	Oakland U.	16,764	3	16,767
254	Fayetteville State U.	16,698	0	16,698
255	TX Tech U., Health Sciences Ctr.	16,618	44,794	61,412
256	U. NC, Greensboro	16,590	0	16,590
257	Embry-Riddle Aeronautical U.	16,484	0	16,484
258	Fisk U.	16,423	0	16,423
259	TN State U.	16,177	0	16,177
260	CA Polytechnic State U., San Luis Obispo	16,067	0	16,067
261	U. HI, Hilo	16,009	0	16,009
262	Duquesne U.	15,661	0	15,661
263	CA State U., Sacramento	15,564	0	15,564
264	Morgan State U.	15,475	0	15,475
265	Charles R. Drew U. of Medicine and Science	15,391	3,156	18,547
266	East Carolina U.	15,259	23,012	38,271
267	Yeshiva U.	15,042	256,124	271,166
268	LA State U., Health Sciences Ctr., New Orleans	15,039	34,404	49,443
269	FL Gulf Coast U.	14,204	0	14,204
270	Baylor U.	13,616	0	13,616
271	FL Institute of Technology	13,298	0	13,298
272	Prairie View A&M U.	13,198	0	13,198
273	SC State U.	13,159	0	13,159
274	Bowling Green State U.	13,157	0	13,157
275	U. AR, Little Rock	13,107	0	13,107
276	CA State U., Long Beach	12,796	0	12,796
277	Hampton U.	12,641	0	12,641
278	Winthrop U.	12,495	0	12,495
279	SD School of Mines and Technology	12,156	0	12,156

Appendix E. Higher Education R&D Expenditures at all institutions, Ranked by all Non-Medical School R&D Expenditures: FY 2013 (Top 300 Insitutions)

(Dollars in thousands)

Rank	Institution	All non-medical school R&D expenditures	All medical school R&D expenditures	All R&D expenditures
280	Clarkson U.	12,061	0	12,061
281	CUNY, Graduate Ctr.	11,982	0	11,982
282	CA State U., San Bernardino	11,942	0	11,942
283	U. Southern ME	11,725	0	11,725
284	U.S. Military Academy	11,630	0	11,630
285	Central MI U.	11,508	1,371	12,879
286	Alcorn State U.	11,315	0	11,315
287	MT Tech of U. MT	11,059	0	11,059
288	U.S. Naval Academy	10,816	0	10,816
289	AR State U., Jonesboro	10,463	0	10,463
290	RI C.	10,385	0	10,385
291	U. TX, Brownsville	10,385	0	10,385
292	Ball State U.	10,357	0	10,357
293	C. Charleston	10,224	0	10,224
294	Tarleton State U.	9,722	0	9,722
295	TN Technological U.	9,715	0	9,715
296	Claremont Graduate U.	9,705	0	9,705
297	CA State U., Northridge	9,640	0	9,640
298	Morehouse C.	9,581	0	9,581
299	VA State U.	9,535	0	9,535
300	Fuller Theological Seminary	9,490	0	9,490

i = imputed.

^a Johns Hopkins University includes Applied Physics Laboratory, with \$1,157,980 thousand in total R&D expenditures in FY 2013.

NOTES: Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2013.

Data from survey cycle FY 2013, as of 31 July 2014.

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
	All institutions	1,637,931	1,740,303	1,820,430	2,068,193	1,174,094	1,292,084	1,358,563	1,552,070
1	U. IL, Urbana-Champaign	67,572	69,426	93,722	224,941	45,628	46,060	72,010	188,085
2	Carnegie Mellon U.	88,530	95,836	109,069	124,962	76,560	84,913	95,071	101,598
3	Johns Hopkins U. ^a	87,537	95,389	96,331	107,516	80,791	87,812	90,806	102,719
4	U. Southern CA	108,260	100,668	99,828	102,538	89,421	96,637	95,438	97,694
5	GA Institute of Technology	71,484	77,966	86,061	100,747	48,200	57,370	66,408	78,398
6	U. TX, Austin	51,974	62,366	64,639	90,972	47,070	52,665	51,173	79,773
7	MA Institute of Technology	48,589	50,127	58,932	68,138	35,458	35,120	37,146	46,744
8	PA State U., University Park and Hershey Medical Ctr.	44,352	41,648	39,534	56,267	34,707	32,822	34,877	50,593
9	U. MD, College Park	35,908	39,215	45,399	38,053	22,960	25,572	31,209	28,354
10	U. CA, San Diego	36,571	35,918	48,703	37,929	14,138	16,797	25,486	17,755
11	U. TN, Knoxville	21,552	25,965	25,476	31,816	17,432	22,894	21,538	19,920
12	OH State U.	32,490	33,426	33,704	29,977	7,942	9,445	9,478	12,399
13	U. UT	23,124	24,172	23,463	28,992	14,704	15,577	15,420	19,934
14	U. AL, Huntsville	16,962	19,087	21,689	25,276	16,916	18,984	21,105	23,852
15	Stanford U.	18,946	20,753	21,031	24,841	14,144	17,305	16,957	19,292
16	IN U., Bloomington	18,453	19,691	17,055	24,010	7,590	6,869	9,879	15,183
17	Cornell U.	17,374	17,897	19,222	23,138	13,589	14,708	16,222	18,168
18	U. NC, Chapel Hill	14,154	17,093	14,607	22,587	11,133	12,824	12,191	13,557
19	U. HI, Manoa	31,958	22,488	20,456	22,378	30,415	19,879	19,070	22,109
20	U. WI, Madison	21,701	21,985	22,368	22,366	16,084	15,653	16,899	16,298
21	Purdue U., West Lafayette	12,300	16,449	21,381	22,175	8,546	11,156	15,067	16,677
22	VA Polytechnic Institute and State U.	11,054	12,776	12,914	19,897	3,619	5,532	5,356	10,588
23	U. Chicago	33,851	51,948	31,354	19,676	32,509	49,498	30,256	18,462
24	U. MA, Amherst	18,841	18,066	18,798	18,661	12,033	12,140	12,617	12,797
25	U. PA	13,964	14,891	16,562	18,373	11,970	12,784	14,660	16,089
26	U. CA, Los Angeles	16,340	15,624	16,333	17,795	11,663	10,568	10,572	11,154
27	Columbia U. in the City of New York	16,868	17,659	21,261	17,385	11,573	14,428	16,822	16,276
28	U. MN, Twin Cities	12,856	14,454	15,120	15,943	7,781	9,413	9,882	10,573
29	U. WA, Seattle	6,642	4,980	9,830	15,774	1,807	1,723	4,525	11,819
30	Princeton U.	10,949	10,632	12,263	14,774	7,139	7,817	9,320	8,028
31	U. CA, Irvine	12,770	13,725	14,278	14,687	8,278	8,614	9,052	8,980
32	SUNY, Buffalo	12,985	15,582	15,975	14,032	6,073	9,458	9,894	8,255
33	Yale U.	5,196	6,290	6,432	13,443	4,154	4,103	5,414	6,194
34	Naval Postgraduate School	12,697	14,016	16,202	13,262	12,561	13,836	15,925	12,777
35	NC State U.	7,313	9,495	11,073	12,031	5,201	7,822	8,568	8,945
36	U. IL, Chicago	11,414	9,495	10,953	12,027	6,624	6,919	7,198	7,721
37	Brown U.	10,969	11,552	11,327	11,641	5,624	4,956	5,316	4,910
38	U. CO, Boulder	7,069	8,757	13,339	11,391	6,315	8,475	12,866	11,022
39	George Mason U.	8,980	8,743	10,646	11,361	8,313	8,125	9,953	10,604
40	U. AL, Tuscaloosa	6,113	5,918	8,889	10,692	3,000	3,514	3,655	5,153
41	AZ State U.	9,036	10,324	10,269	10,539	6,898	7,019	6,880	7,542
42	Rutgers, State U. NJ, New Brunswick	7,429	7,233	6,979	10,487	4,432	4,224	4,883	6,602
43	U. CA, Santa Barbara	7,097	9,409	13,479	10,060	4,690	6,065	5,680	6,986

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
44	MI State U.	5,477	6,976	10,721	9,859	3,324	4,087	6,566	6,242
45	U. AZ	8,445	10,267	9,227	9,664	6,903	8,252	8,439	8,248
46	Rensselaer Polytechnic Institute	4,768	6,263	7,795	9,431	3,719	5,038	5,885	7,453
47	U. CA, Davis	8,840	9,401	9,158	9,411	6,976	6,655	6,522	7,060
48	TX A&M U., College Station and Health Science Ctr.	10,511	9,517	8,224	9,368	5,097	4,432	4,573	5,484
49	Northeastern U.	3,542	4,170	7,394	8,380	3,078	3,658	6,248	7,096
50	U. LA, Lafayette	8,597	9,601	9,377	8,376	1,285	1,343	1,409	1,546
51	U. TX, Dallas	8,148	6,597	6,681	8,334	3,648	4,143	4,444	5,071
52	Clemson U.	3,775	3,773	5,098	8,288	1,737	1,708	2,599	5,134
53	Rice U.	10,184	11,537	9,098	8,148	8,703	10,295	7,373	6,595
54	FL International U.	6,644	6,611	7,240	8,111	4,164	4,282	4,218	4,414
55	U. TX, El Paso	5,073	7,492	8,119	7,436	3,679	5,465	6,879	5,542
56	SUNY, Stony Brook U.	6,451	6,537	7,366	7,194	5,589	5,563	6,398	5,834
57	MS State U.	10,339	11,252	10,003	7,113	6,441	6,846	6,089	4,160
58	IA State U.	7,772	7,453	6,717	7,083	4,359	3,900	3,475	4,141
59	U. VA, Charlottesville	6,298	6,949	7,815	6,872	5,201	5,165	6,475	5,723
60	U. Pittsburgh, Pittsburgh	6,408	7,232	6,951	6,800	3,775	4,533	4,632	4,453
61	U. MI, Ann Arbor	5,713	6,572	5,674	6,755	4,144	4,386	4,182	5,103
62	U. Notre Dame	4,287	5,647	6,026	6,754	2,470	4,080	4,186	3,451
63	FL State U.	7,142	7,309	5,670	6,548	5,306	5,551	3,773	3,497
64	U. MD, Baltimore County	6,073	5,790	6,728	6,483	4,889	4,728	5,738	5,354
65	Rockefeller U.	6,922	6,060	6,361	6,211	0	0	0	0
66	NY U.	6,940	6,588	7,436	6,147	5,014	5,725	6,371	5,324
67	U. CA, Santa Cruz	4,003	5,236	6,444	6,086	2,052	2,891	3,491	3,064
68	U. OR	6,383	6,186	7,850	6,001	5,796	5,752	7,389	5,574
69	SUNY, U. Albany	2,833	3,539	5,182	5,949	1,472	2,094	3,948	4,586
70	U. FL	5,930	6,395	6,442	5,921	4,818	4,932	4,858	4,014
71	U. TX, San Antonio	6,939	7,818	6,863	5,799	5,466	5,602	5,568	4,550
72	Syracuse U.	3,493	7,571	10,009	5,736	1,218	1,990	2,612	1,953
73	Dartmouth C.	2,738	1,991	5,416	5,696	1,870	1,216	4,530	5,151
74	OR State U.	2,563	2,663	3,608	5,666	2,486	2,478	3,325	4,830
75	U. DE	4,686	7,461	5,991	5,619	3,766	5,981	4,845	4,485
76	U. South FL, Tampa	1,988	2,268	2,359	5,573	1,235	1,286	1,387	1,443
77	U. NC, Charlotte	7,519	5,231	6,053	5,407	3,458	3,620	5,315	4,880
78	U. Houston	8,465	8,735	7,273	5,405	5,389	5,815	3,978	2,834
79	Drexel U.	3,895	2,826	3,275	5,335	2,628	2,196	2,406	4,000
80	U. NE, Lincoln	6,862	7,110	8,145	5,264	4,445	4,825	4,141	3,107
81	Duke U.	5,608	5,530	5,214	5,188	4,776	4,688	4,365	4,261
82	George Washington U.	3,830	4,516	3,061	5,168	2,683	3,236	2,277	3,142
83	Boston U.	2,413	3,318	3,884	5,111	2,143	3,022	3,361	4,237
84	NJ Institute of Technology	5,703	5,928	3,923	5,100	1,846	1,044	794	727
85	SUNY, Binghamton U.	3,503	3,632	5,185	4,833	1,083	1,236	1,647	1,652
86	U. AR, Little Rock	2,185	2,574	852	4,703	1,571	1,694	571	332
87	Washington U., St. Louis	5,835	5,069	4,980	4,659	3,306	3,095	4,362	4,039

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
88	Wright State U.	5,912	4,549	4,336	4,585	1,159	1,749	1,483	1,729
89	U. CA, Riverside	3,650	3,570	3,719	4,436	2,926	2,720	3,045	3,128
90	U. NM	3,190	3,159	3,810	4,354	2,753	2,802	3,528	4,215
91	KS State U.	2,067	2,662	3,796	4,170	1,232	2,049	2,983	2,636
92	U. MA, Lowell	2,696	2,212	3,327	4,118	1,388	1,341	1,890	2,139
93	ND State U.	3,426	2,842	2,620	3,996	2,733	2,392	2,043	1,915
94	U. TX, Arlington	3,143	3,996	3,968	3,919	1,957	2,017	2,315	1,921
95	IN U.-Purdue U., Indianapolis	715	1,193	1,219	3,858	228	604	757	1,883
96	CO State U., Ft. Collins	2,889	3,293	3,736	3,769	2,404	2,738	3,338	3,264
97	U. CT	3,647	3,614	3,317	3,765	2,821	2,812	2,606	2,831
98	U. Tulsa	3,727	4,144	4,219	3,764	3,404	3,792	3,804	3,607
99	Polytechnic Institute of NY U.	0	0	4,640	3,757	0	0	3,938	3,349
100	Worcester Polytechnic Institute	2,269	2,600	3,231	3,664	2,098	2,252	2,377	2,987
101	U. GA	2,546	3,383	3,364	3,484	941	1,035	878	1,015
102	Temple U.	1,796	3,061	3,443	3,422	1,399	2,405	2,363	2,411
103	Wayne State U.	2,145	2,517	3,327	3,406	1,139	1,240	1,993	2,260
104	Old Dominion U.	2,961	3,809	4,181	3,391	878	1,166	1,348	1,023
105	U. Memphis	4,236	3,540	3,899	3,366	1,737	1,401	2,296	1,819
106	U. Rochester	2,669	2,804	3,258	3,342	1,942	2,161	2,817	2,916
107	IL Institute of Technology	2,458	1,505	1,843	3,333	1,798	1,412	1,667	3,155
108	U. KY	4,209	3,958	3,269	3,264	2,318	2,396	1,432	1,260
109	TX Tech U.	3,490	3,162	2,737	3,254	700	320	262	457
110	U. North TX, Denton	1,591	2,427	3,101	3,210	1,136	1,172	1,341	1,855
111	LA State U., Baton Rouge	3,527	3,265	2,827	2,828	1,635	1,518	1,318	1,408
112	LA Tech U.	3,621	4,061	3,342	2,751	1,662	2,245	1,178	851
113	U. OK, Norman and Health Science Ctr.	1,891	2,074	3,306	2,734	932	756	2,483	2,201
114	U. AK, Fairbanks	15,561	13,922	4,488	2,703	14,925	13,746	4,423	2,693
115	U. NE, Omaha	2,603	2,492	2,514	2,529	2,113	2,129	2,307	2,156
116	U. ID	711	2,027	2,541	2,452	399	1,269	1,797	1,893
117	U. MA, Boston	2,188	1,715	2,569	2,428	1,703	1,255	1,923	2,008
118	Tufts U.	2,031	1,959	2,442	2,216	1,837	1,809	2,208	1,887
119	U. MO, Columbia	972	1,596	1,949	2,209	799	1,097	1,350	1,867
120	U. Dayton	482	446	370	2,124	468	388	55	1,482
121	Portland State U.	2,634	2,653	2,237	2,106	2,245	2,385	2,064	1,997
122	C. of William and Mary and VA Institute of Marine Science	1,368	1,130	1,355	2,097	1,204	971	1,350	1,995
123	American U.	367	188	139	2,021	4	44	49	0
124	Georgetown U.	32	312	937	2,021	32	312	914	1,911
125	U.S. Air Force Academy	1,063	1,495	5,756	2,007	142	676	5,629	1,863
126	GA State U.	754	1,609	1,423	1,910	544	732	1,091	986
127	Air Force Institute of Technology	4,832	2,754	2,253	1,872	1,995	1,409	1,448	960
128	OK State U., Stillwater	1,897	1,702	2,496	1,830	693	708	1,315	353
129	Southern IL U., Edwardsville	569	632	902	1,793	144	183	300	492
130	New School	659	773	1,048	1,781	659	773	981	1,389
131	U. ME	1,583	1,568	1,453	1,767	101	28	0	0

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
132	Brandeis U.	1,289	1,266	1,154	1,764	1,273	1,265	1,127	1,755
133	Rochester Institute of Technology	1,349	1,108	2,127	1,665	901	920	1,197	934
134	San Diego State U.	1,484	2,830	1,573	1,583	810	1,872	1,073	796
135	Boise State U.	1,152	222	292	1,553	1,106	184	147	223
136	MI Technological U.	1,483	1,463	1,597	1,545	216	203	276	383
137	Lehigh U.	2,170	1,894	1,484	1,533	2,031	1,860	1,322	1,433
138	DePaul U.	827	1,304	1,596	1,479	682	1,143	1,411	1,289
139	FL A&M U.	960	2,235	932	1,444	877	2,233	904	1,444
140	FL Atlantic U.	1,330	736	1,621	1,422	350	229	318	547
141	Dakota State U.	ne	1,015	5,671	1,418	ne	402	3,555	807
142	U. IA	1,268	1,329	1,442	1,408	1,097	1,120	1,272	1,161
143	Stevens Institute of Technology	1,925	1,402	954	1,399	1,766	1,148	904	1,302
144	WA State U.	3,879	610	412	1,391	2,029	298	104	91
145	U. AL, Birmingham	542	629	1,057	1,351	520	521	908	1,064
146	U. CA, Office of the President	1,649	1,639	1,606	1,327	0	0	0	0
147	U. CA, Berkeley	0	0	0	1,322	0	0	0	0
148	Jackson State U.	503	1,259	1,480	1,297	484	1,228	1,411	1,137
149	UT State U.	1,780	1,707	1,359	1,292	937	1,192	1,037	691
150	Southern Methodist U.	957	1,058	1,396	1,244	652	783	875	1,029
151	U. Miami	30	267	832	1,244	29	252	752	1,171
152	Harvard U.	629	813	895	1,224	627	813	768	936
153	U. MO, Kansas City	1,051	955	994	1,194	792	781	705	315
154	TX Southern U.	148	74	11	1,165	111	57	6	1,140
155	NM State U.	860	1,081	1,786	1,151	580	995	1,236	988
156	AL A&M U.	0	1	1	1,132	0	0	0	948
157	FL Institute of Technology	1,191	741	643	1,099	872	598	511	778
158	U. Central FL	521	494	409	1,099	254	321	281	359
159	U. WI, Milwaukee	749	1,047	1,061	1,078	246	350	534	579
160	U. NV, Reno	1,832	1,220	567	1,060	1,236	1,050	483	878
161	CUNY, City C.	605	828	779	1,049	605	782	441	822
162	MO U. of Science and Technology	785	548	738	1,039	631	482	631	882
163	Bowie State U.	ne	1,258	443	1,031	ne	1,258	443	1,031
164	TX State U., San Marcos	232	414	594	1,011	153	143	329	700
165	CUNY, Queens C.	201	277	476	995	153	253	457	952
166	U. TN, Chattanooga	546	162	1,083	977	137	152	236	246
167	Brigham Young U., Provo	897	986	1,244	944	619	728	876	713
168	Norfolk State U.	1,375	1,981	1,174	938	1,375	1,954	1,109	874
169	SUNY, Institute of Technology, Utica/Rome	596	699	ne	930	596	699	ne	930
170	Creighton U.	40	0	0	929	40	0	0	618
171	U. New Orleans	2,230	1,196	825	926	747	591	504	614
172	Baylor U.	378	811	471	919	1	173	122	278
173	NC Agricultural and Technical State U.	2,008	988	880	919	2,001	944	732	871
174	U. SC, Columbia	2,400	1,766	2,944	890	2,400	1,736	2,433	759
175	San Francisco State U.	382	445	644	881	32	221	166	303

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
176	U. KS	299	1,281	1,352	862	292	1,063	1,080	661
177	Ball State U.	428	768	701	835	102	180	208	389
178	CUNY, Brooklyn C.	1,008	636	504	817	758	539	446	610
179	U.S. Naval Academy	218	411	620	811	218	411	608	811
180	Harvey Mudd C.	444	750	757	772	419	732	743	710
181	National Defense U.	ne	ne	ne	770	ne	ne	ne	770
182	CUNY, Hunter C.	514	705	643	767	259	437	371	459
183	Towson U.	419	1,005	767	766	337	909	619	635
184	Oakland U.	1,018	19	844	737	324	0	213	277
185	Southern IL U., Carbondale	539	647	959	723	151	171	220	143
186	Howard U.	478	675	883	703	421	489	860	693
187	U. Southern MS	353	697	1,163	688	339	697	707	406
188	CA State U., Dominguez Hills	193	251	444	683	174	232	444	683
189	MT State U., Bozeman	873	455	616	642	589	319	404	322
190	Rutgers, State U. NJ, Newark	656	436	515	632	512	436	477	566
191	U.S. Military Academy	1,440	897	2,422	623	1,440	897	2,422	623
192	U. VT	487	410	649	621	209	362	479	514
193	U. NV, Las Vegas	1,760	808	1,520	604	975	178	975	13
194	U. MA, Dartmouth	428	285	503	598	241	108	357	212
195	Emory U.	483	830	2,762	578	0	812	2,608	0
196	Xavier U. LA	196	332	316	539	145	296	296	518
197	ID State U.	420	859	803	537	420	407	364	537
198	U. Louisville	680	975	658	537	479	946	578	382
199	U. CO, Colorado Springs	846	809	685	536	716	749	637	500
200	Villanova U.	459	463	469	523	298	319	312	483
201	CA State U., San Marcos	91	511	511	510	91	349	349	349
202	Northern IL U.	251	383	425	485	251	383	400	458
203	Wake Forest U.	306	597	617	469	199	597	617	469
204	U. NC, Wilmington	139	855	520	462	139	855	508	426
205	CA State U., Sacramento	100	69	375	456	2	69	358	456
206	Case Western Reserve U.	188	92	98	456	183	92	84	413
207	Williams C.	439	591	429	449	171	251	198	274
208	Kent State U.	956	831	611	443	810	742	516	278
209	Fordham U.	201	7	213	439	0	0	146	370
210	Prairie View A&M U.	46	420	491	428	42	345	402	373
211	CA Institute of Technology	9,072	14,834	5,917	425	8,631	13,008	4,221	0
212	Lamar U.	498	495	305	417	498	495	305	405
213	U. MS and U. MS, Jackson, Medical Ctr.	338	429	416	415	325	393	372	367
214	Bryn Mawr C.	248	556	807	413	100	321	487	228
215	U. Southern ME	190	1,424	489	413	13	75	28	0
216	Western MI U.	260	223	120	410	66	134	34	263
217	Wichita State U.	0	199	363	410	0	77	0	45
218	Pace U.	196	336	381	406	140	292	355	266
219	CUNY, John Jay C. of Criminal Justice	244	192	327	405	236	186	225	367

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
220	Clark Atlanta U.	236	292	293	403	236	292	293	385
221	VA Commonwealth U.	446	297	446	396	331	292	354	357
222	U. SD	385	483	347	391	245	255	184	223
223	Wellesley C.	25	186	306	390	25	186	306	390
224	U. RI	903	1,145	645	386	777	971	596	369
225	Fisk U.	0	0	0	380	0	0	0	265
226	U. NH	327	254	314	375	294	252	282	353
227	WV U.	320	427	409	369	215	306	266	252
228	Fayetteville State U.	0	0	0	353	0	0	0	353
229	U. TX, Brownsville	632	566	646	350	623	555	640	349
230	TN Technological U.	127	294	204	342	116	183	169	257
231	Southern U. and A&M C., Baton Rouge	87	391	400	338	28	391	400	338
232	U. MO, St. Louis	0	0	0	338	0	0	0	0
233	U. TX, Pan American	148	236	557	334	141	155	491	315
234	U. MT, Missoula	291	143	172	333	279	143	169	331
235	Alcorn State U.	0	409	551	325	0	343	440	262
236	U. NC, Greensboro	306	215	146	321	301	197	146	316
237	Columbia C., Chicago	ne	859	762	316	ne	859	762	316
238	NM Institute of Mining and Technology	752	715	903	298	455	697	882	298
239	C. Charleston	334	245	292	294	246	216	243	225
240	TN State U.	37	30	178	277	37	28	177	266
241	Vassar C.	285	349	332	266	285	349	332	266
242	Teachers C., Columbia U.	192	203	219	265	58	115	152	107
243	Middle TN State U.	140	239	97	260	119	219	89	252
244	Smith C.	429	479	433	257	417	468	413	237
245	U. PR, Rio Piedras	4	0	328	249	0	0	321	67
246	Hampton U.	181	107	438	245	181	107	438	245
247	TX A&M U., Corpus Christi	511	597	238	244	368	542	196	167
248	Auburn U., Auburn	94	47	10	240	1	1	0	0
249	U. WY	102	133	240	239	101	133	240	130
250	U. AK, Anchorage	0	0	92	237	0	0	92	85
251	Bradley U.	51	121	160	233	0	0	0	1
252	MT Tech of U. MT	33	62	515	230	33	36	0	0
253	Boston C.	154	322	243	223	83	239	174	158
254	U. Houston, Downtown	234	170	369	221	198	130	317	221
255	CUNY, Lehman C.	282	317	371	214	260	299	251	200
256	CA State U., Monterey Bay	0	74	327	206	0	15	264	206
257	Northern KY U.	17	139	171	204	9	100	121	152
258	Salisbury U.	0	0	327	204	0	0	35	142
259	Hope C.	721	868	409	203	698	853	393	202
260	Clarkson U.	105	226	233	202	66	218	122	192
261	Hofstra U.	182	144	156	195	182	143	153	194
262	U. Central AR	67	143	194	176	47	130	166	176
263	LA State U., Shreveport	340	329	415	171	275	235	369	159

Appendix F. Total and Federally Financed Higher Education R&D Expenditures in the Computer Sciences, Ranked by FY 2013 Total: FYs 2010–13

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
264	Miami U.	0	0	0	168	0	0	0	0
265	TX A&M U., Commerce	335	141	192	168	305	141	192	92
266	Lafayette C.	105	126	5	165	103	110	0	163
267	AR State U., Jonesboro	107	304	276	164	91	177	133	95
268	U. MN, Duluth	235	176	195	162	189	132	139	115
269	Gonzaga U.	163	98	160	155	163	95	143	155
270	U. Central OK	28	0	48	153	20	0	46	103
271	OH U.	66	44	64	152	26	38	55	123
272	Suffolk U.	ne	113	147	150	ne	86	0	0
273	U. WI, Eau Claire	55	51	114	147	54	51	109	147
274	GA Southern U.	226	78	122	143	166	6	0	22
275	James Madison U.	894	643	229	143	860	542	160	124
276	U. South AL	431	34	199	140	266	2	0	73
277	Bowdoin C.	43	121	189	135	43	121	187	134
278	East Carolina U.	81	50	123	135	81	0	67	38
279	U. of the DC	220	228	152	133	110	88	132	133
280	U. San Francisco	6	38	96	133	6	31	92	133
281	Rutgers, State U. NJ, Camden	183	372	205	132	183	366	150	132
282	Southeastern LA U.	307	171	160	130	28	26	44	5
283	Sinte Gleska U.	368	79	ne	128	368	79	ne	23
284	Oberlin C.	163	138	206	127	136	135	198	92
285	DE State U.	281	268	239	126	281	268	239	126
286	CUNY, Graduate Ctr.	4	10	77	125	0	0	77	93
287	Grinnell C.	34	100	204	125	0	18	36	0
288	Rowan U.	25	153	176	123	25	40	1	57
289	U. AR, Fayetteville	320	116	31	119	14	0	0	0
290	U. Denver	260	188	50	119	188	178	50	119
291	U. North FL	306	169	80	117	0	0	2	16
292	Union C., Schenectady	191	156	109	114	163	144	93	96
293	WV State U.	26	181	94	114	26	181	94	114
294	Colgate U.	134	163	217	107	121	124	188	81
295	U. of the VI	0	0	75	106	0	0	0	0
296	Montclair State U.	268	171	141	102	244	128	108	87
297	Appalachian State U.	56	49	141	101	56	44	126	98
298	Trinity C., Hartford	266	299	84	101	226	280	74	98
299	Middlebury C.	103	131	151	98	103	131	151	98
300	CA State U., Bakersfield	158	0	4	97	0	0	0	5

tion did not meet the criteria for inclusion.

^a Johns Hopkins University includes Applied Physics Laboratory, with \$104,707 thousand in total and \$100,139 thousand in federally financed R&D expenditures in computer sciences in FY 2013.

**Appendix G. Higher Education R&D Expenditures in Engineering Subfields, Ranked by all FY 2013 Engineering R&D:
By Subfield for FY 2013 (Top 100 Institutions)**

(Dollars in thousands)

Rank	Institution	2013								
		All engineering	Aeronautical and astronautical engineering	Bioengineering and biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical and materials engineering	Engineering, nec
	All institutions	10,728,685	689,535	885,487	909,377	1,295,907	2,413,861	1,647,297	812,011	2,075,210
1	Johns Hopkins U. ^a	878,969	99,900	25,131	19,724	14,041	251,581	182,069	804	285,719
2	GA Institute of Technology	503,466	53,131	35,512	35,827	28,233	199,350	86,440	27,471	37,502
3	MA Institute of Technology	420,307	31,101	51,835	34,531	29,778	76,568	67,368	46,340	82,786
4	SUNY, U. Albany, C. of Nanoscale Science and Engineering	369,584	17,053	27,117	39,440	70,107	69,835	50,644	27,069	68,319
5	PA State U., University Park and Hershey Medical Ctr.	320,195	19,564	3,045	13,124	27,391	92,773	85,906	78,392	0
6	TX A&M U., College Station and Health Science Ctr.	278,536	15,582	10,657	18,008	78,050	23,851	35,211	7,728	89,449
7	U. MI, Ann Arbor	244,187	13,405	12,626	13,557	24,654	62,276	40,116	13,945	63,608
8	Purdue U., West Lafayette	220,926	14,036	10,941	15,010	43,899	38,588	50,232	6,030	42,190
9	VA Polytechnic Institute and State U.	214,485	8,478	12,109	5,795	55,652	43,742	46,151	14,765	27,793
10	U. TX, Austin	206,033	10,367	8,408	46,191	31,024	37,096	10,440	19,999	42,508
11	U. CA, Berkeley	177,450	0	611	8,112	20,268	105,114	388	80	42,877
12	U. IL, Urbana-Champaign	165,186	8,011	5,184	7,800	26,465	51,041	28,819	22,520	15,346
13	OH State U.	155,507	803	1,700	11,918	12,858	32,289	53,361	29,365	13,213
14	U. WI, Madison	139,011	0	20,112	13,972	22,809	11,338	7,114	8,128	55,538
15	Stanford U.	131,406	11,920	15,012	15,895	12,331	32,870	30,148	5,039	8,191
16	NC State U.	129,817	2,288	10,397	26,078	10,771	26,246	7,306	18,102	28,629
17	U. CA, San Diego	125,933	0	23,887	0	0	74,664	16,187	0	11,195
18	U. WA, Seattle	121,890	6,425	24,056	8,325	14,545	28,106	7,999	7,011	25,423
19	U. MD, College Park	120,139	13,589	7,482	2,515	21,223	20,032	19,046	11,271	24,981
20	Cornell U.	104,640	0	8,856	10,376	4,850	18,078	14,055	11,868	36,557
21	AZ State U.	101,727	0	21,155	2,958	5,432	42,675	0	4,875	24,632
22	U. MN, Twin Cities	100,375	6,472	19,195	17,759	16,882	14,104	18,717	0	7,246
23	U. CA, Santa Barbara	99,090	0	16,437	11,121	2,251	31,894	10,093	27,287	7
24	U. Rochester	98,369	0	6,082	2,102	0	3,998	78,946	0	7,241
25	U. CO, Boulder	97,680	39,963	1,059	13,854	14,430	14,131	10,060	0	4,183
26	Carnegie Mellon U.	94,157	2,684	8,378	8,826	7,658	19,167	6,815	6,512	34,117
27	U. FL	88,911	8,993	12,862	5,083	7,489	16,521	5,512	11,001	21,450
28	U. CA, Davis	85,867	0	21,082	11,673	29,866	10,717	11,801	0	728
29	SUNY, Buffalo	82,189	656	11,262	23,679	13,488	5,259	7,560	54	20,231
30	Northwestern U.	81,955	0	9,983	13,472	3,289	8,096	8,942	21,178	16,995
31	UT State U.	81,287	62,403	1,785	0	10,619	2,810	2,912	0	758
32	U. UT	80,255	0	8,816	8,460	21,328	7,263	4,386	8,185	21,817
33	Princeton U.	78,258	2,482	4,724	3,756	11,860	13,874	8,940	31,556	1,066
34	U. Dayton	77,587	8,830	41	6,445	207	10,636	1,391	39,452	10,585
35	NM State U.	77,303	8,698	160	4,360	2,331	5,344	1,732	511	54,167
36	U. CA, Los Angeles	76,010	0	4,970	10,006	4,852	21,261	13,823	10,832	10,266
37	Duke U.	72,195	0	19,393	0	4,437	30,569	5,391	6,485	5,920
38	IA State U.	67,958	3,186	0	9,803	14,587	12,969	3,194	4,504	19,715
39	U. Southern CA	67,714	1,216	13,185	7,766	3,985	27,993	5,047	1,690	6,832
40	U. VA, Charlottesville	67,517	0	7,338	3,065	4,846	12,919	14,327	13,829	11,193
41	U. TN, Knoxville	65,343	9,980	2,183	4,545	11,317	13,386	0	11,942	11,990
42	U. Notre Dame	63,663	14,353	0	13,898	10,182	18,586	0	3,720	2,924
43	Columbia U. in the City of New York	63,405	2,186	14,461	5,918	3,534	19,738	4,268	0	13,300
44	U. AZ	61,461	1,855	4,128	6,180	2,075	18,351	15,094	7,062	6,716
45	Rensselaer Polytechnic Institute	60,295	0	5,004	7,503	10,265	17,395	14,704	4,822	602
46	Vanderbilt U.	59,890	0	6,375	5,559	7,555	34,898	5,502	0	1

**Appendix G. Higher Education R&D Expenditures in Engineering Subfields, Ranked by all FY 2013 Engineering R&D:
By Subfield for FY 2013 (Top 100 Institutions)**

(Dollars in thousands)

Rank	Institution	2013								
		All engineering	Aeronautical and astronautical engineering	Bioengineering and biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical and materials engineering	Engineering, nec
47	Rutgers, State U. NJ, New Brunswick	59,611	4,112	7,694	4,832	21,164	5,263	2,612	5,376	8,558
48	Woods Hole Oceanographic Institution	58,804	0	0	0	0	0	0	0	58,804
49	U. DE	58,592	0	2,423	18,332	10,112	10,368	5,087	11,345	925
50	Harvard U.	57,962	0	6,975	4,331	6,691	6,536	6,260	19,012	8,157
51	U. CA, Santa Cruz	56,129	0	0	0	0	3,454	0	0	52,675
52	U. KY	53,258	0	2,140	2,548	11,841	4,479	3,422	4,339	24,489
53	Clemson U.	51,795	0	11,199	0	9,778	6,587	4,463	9,223	10,545
54	Auburn U., Auburn	51,672	636	1,179	6,735	6,981	9,307	6,343	1,608	18,883
55	U. IA	51,403	0	593	1,592	26,534	3,479	4,144	0	15,061
56	NJ Institute of Technology	50,652	0	4,804	3,993	9,479	3,708	2,709	0	25,959
57	Rice U.	48,869	0	16,607	6,763	4,785	12,434	7,882	49	349
58	U. South FL, Tampa	48,713	0	442	2,664	24,125	5,016	5,254	0	11,212
59	U. AL, Huntsville	48,621	38,983	3	435	301	3,058	3,912	521	1,408
60	U. TX, Arlington	48,233	0	4,280	0	5,787	3,833	5,618	1,900	26,815
61	U. PA	48,182	0	10,418	4,846	0	14,358	6,324	9,382	2,854
62	Case Western Reserve U.	48,079	280	13,873	8,658	836	8,787	4,017	6,019	5,609
63	Wichita State U.	47,026	39,072	447	0	0	1,456	87	0	5,964
64	U. Houston	46,701	1,247	7,291	6,233	7,155	6,526	8,138	7,176	2,935
65	MI State U.	45,695	0	1,043	10,653	5,073	12,719	10,576	0	5,631
66	U. MA, Amherst	45,030	0	0	14,503	8,472	14,677	6,330	0	1,048
67	Boston U.	43,319	1,034	22,136	0	0	10,593	4,381	3,236	1,939
68	U. CA, Irvine	43,025	0	5,370	2,968	7,379	13,779	13,478	0	51
69	Northeastern U.	42,171	0	0	5,687	7,454	17,078	11,804	0	148
70	FL State U.	42,108	698	288	1,224	1,608	13,424	20,127	3,837	902
71	U. NE, Lincoln	41,693	0	4,326	4,570	13,050	9,139	3,363	5,223	2,022
72	WA State U.	40,886	0	669	4,428	6,604	10,810	4,561	2,928	10,886
73	MS State U.	40,165	2,962	930	3,282	4,260	12,958	9,802	0	5,971
74	MI Technological U.	39,860	0	1,767	2,392	4,807	7,860	14,790	4,107	4,137
75	U. CT	39,224	0	0	5,099	10,316	6,174	6,030	9,037	2,568
76	Drexel U.	39,013	0	6,492	2,968	3,931	7,574	7,155	6,607	4,286
77	CO School of Mines	38,715	27	564	8,692	4,786	453	2,288	14,168	7,737
78	U. TX, Dallas	38,530	0	1,130	0	0	15,565	1,319	9,953	10,563
79	LA State U., Baton Rouge	38,041	0	0	5,943	10,194	1,786	5,836	4,102	10,180
80	U.S. Air Force Academy	37,998	5,424	0	0	165	949	30,660	0	800
81	U. ND	37,548	0	0	2,351	1,790	254	593	0	32,560
82	U. Central FL	37,519	1,222	10,897	0	8,034	8,301	4,820	2,014	2,231
83	U. Cincinnati	37,388	6,216	1,994	6,054	1,300	6,656	7,656	63	7,449
84	U. NH	37,183	0	0	668	4,051	28,917	2,940	518	89
85	CO State U., Ft. Collins	37,058	0	0	2,748	11,573	14,428	7,759	0	550
86	WV U.	37,058	0	0	5,016	4,385	9,296	11,293	1,043	6,025
87	U. NM	37,010	0	1,663	5,966	3,596	14,254	1,900	1,418	8,213
88	U. Pittsburgh, Pittsburgh	36,867	0	11,898	6,194	2,715	4,194	6,276	0	5,590
89	U. Akron	36,384	0	1,196	12,861	6,936	2,562	5,508	0	7,321
90	OR State U.	35,384	51	3,550	7,162	5,535	3,640	4,766	1,362	9,318
91	U. MO, Columbia	34,769	0	138	785	2,783	5,858	2,335	0	22,870
92	U. SC, Columbia	33,757	0	0	6,479	2,914	7,351	9,649	0	7,364
93	CA Institute of Technology	33,410	8,285	3,924	7,752	319	5,293	5,924	278	1,635
94	Yale U.	33,012	0	4,284	4,733	0	6,634	5,392	0	11,969

Appendix G. Higher Education R&D Expenditures in Engineering Subfields, Ranked by all FY 2013 Engineering R&D: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013								
		All engineering	Aeronautical and astronautical engineering	Bioengineering and biomedical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgical and materials engineering	Engineering, nec
95	Old Dominion U.	32,209	0	0	0	8,140	15,630	8,216	0	223
96	TX Tech U.	31,909	0	0	5,901	5,215	9,764	7,437	0	3,592
97	Brown U.	27,815	0	470	818	0	17,444	5,450	2,998	635
98	MO U. of Science and Technology	27,560	0	0	250	2,192	6,864	3,232	2,364	12,658
99	U. OK, Norman and Health Science Ctr.	26,730	0	0	9,431	5,904	6,677	2,613	0	2,105
100	CUNY, City C.	26,356	0	3,709	4,667	6,992	6,915	4,073	0	0

tion did not meet the criteria for inclusion.

sewhere classified.

h \$805,354 thousand in total R&D expenditures in engineering in FY 2013.

NOTES: Institutions reporting zero expenditures in ranked total for FY 2013 are not listed in this table. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

d Engineering Statistics, Higher Education Research and Development Survey.

: FY 2013, as of 31 July 2014.

**Appendix H. Higher Education R&D Expenditures in the Environmental Sciences,
Ranked by all FY 2013 Environmental Sciences: By Subfield for FY 2013
(Top 100 Institutions)**

(Dollars in thousands)

Rank	Institution	2013				
		All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
	All institutions	3,199,157	493,687	1,164,119	1,052,263	489,088
1	U. CA, San Diego	165,376	19,180	40,375	105,821	0
2	Woods Hole Oceanographic Institution	139,428	0	0	139,428	0
3	TX A&M U., College Station and Health Science Ctr.	128,322	5,106	8,619	103,527	11,070
4	Columbia U. in the City of New York	115,408	22,094	50,277	14,876	28,161
5	U. WA, Seattle	114,222	45,315	8,001	58,985	1,921
6	CO State U., Ft. Collins	99,295	37,993	61,301	0	1
7	U. CO, Boulder	94,826	25,945	53,808	1,210	13,863
8	U. HI, Manoa	88,330	2,001	24,533	57,004	4,792
9	U. TX, Austin	72,067	0	60,130	10,585	1,352
10	U. NH	61,051	27,828	12,549	20,647	27
11	U. AK, Fairbanks	58,322	8,862	21,646	21,940	5,874
12	U. Miami	55,796	41,690	51	11,878	2,177
13	U. MD, Ctr. for Environmental Science	53,683	0	4,201	49,482	0
14	PA State U., University Park and Hershey Medical Ctr.	51,449	20,237	24,293	6,919	0
15	MA Institute of Technology	51,264	10,734	18,609	8,061	13,860
16	U. WI, Madison	49,364	29,467	7,754	3,687	8,456
17	OR State U.	46,535	3,901	7,397	21,108	14,129
18	U. RI	43,736	192	10,595	30,996	1,953
19	U. OK, Norman and Health Science Ctr.	42,065	29,395	12,670	0	0
20	Johns Hopkins U. ^a	38,642	5,809	3,653	9,292	19,888
21	U. MD, College Park	36,390	2,731	33,659	0	0
22	SUNY, Stony Brook U.	36,160	692	5,568	29,732	168
23	U. NC, Chapel Hill	34,570	0	22,938	9,310	2,322
24	U. AZ	33,290	2,796	19,793	0	10,701
25	AZ State U.	33,051	0	33,051	0	0
26	Rutgers, State U. NJ, New Brunswick	32,675	2,847	328	14,570	14,930
27	Harvard U.	31,801	110	9,381	0	22,310
28	LA State U., Baton Rouge	30,493	0	3,618	20,786	6,089
29	Stanford U.	29,492	0	10,495	4,314	14,683
30	U. WY	28,813	3,778	3,008	0	22,027
31	C. of William and Mary and VA Institute of Marine Science	28,617	0	82	28,217	318
32	Desert Research Institute	26,627	7,956	18,671	0	0
33	U. CA, Davis	25,299	1,141	4,376	3,749	16,033
34	FL State U.	23,498	6,946	2,289	12,342	1,921
35	U. CA, Santa Barbara	22,877	0	8,723	13,294	860
36	U. CA, Santa Cruz	22,849	0	6,066	11,597	5,186

**Appendix H. Higher Education R&D Expenditures in the Environmental Sciences,
Ranked by all FY 2013 Environmental Sciences: By Subfield for FY 2013
(Top 100 Institutions)**

(Dollars in thousands)

Rank	Institution	2013				
		All environmental sciences	Atmospheric sciences	Earth sciences	Oceanography	Environmental sciences, nec
37	Cornell U.	22,086	0	8,663	37	13,386
38	Princeton U.	21,735	6,816	8,700	0	6,219
39	U. South FL, Tampa	21,728	0	2,370	19,347	11
40	U. CA, Los Angeles	21,532	5,734	11,252	0	4,546
41	NC State U.	21,244	8,216	0	2,547	10,481
42	U. KS	21,072	806	20,059	175	32
43	CA Institute of Technology	20,935	0	17,889	0	3,046
44	Duke U.	20,134	0	2,663	6,185	11,286
45	U. DE	19,971	0	2,398	13,364	4,209
46	U. Southern MS	19,615	36	563	15,661	3,355
47	U. MI, Ann Arbor	17,924	0	17,924	0	0
48	GA Institute of Technology	15,729	7,846	216	0	7,667
49	U. MN, Twin Cities	15,624	0	13,275	0	2,349
50	U. Southern CA	15,339	0	11,663	3,676	0
51	U. MN, Duluth	14,994	0	483	3,379	11,132
52	U. MD, Baltimore County	14,919	0	14,919	0	0
53	U. ME	14,909	0	5,059	9,850	0
54	U. GA	14,643	0	4,276	10,367	0
55	Brown U.	14,513	0	12,159	0	2,354
56	Naval Postgraduate School	14,456	8,255	0	6,069	132
57	MI Technological U.	13,968	0	1,446	0	12,522
58	U. NV, Reno	12,887	536	9,451	452	2,448
59	Washington U., St. Louis	12,693	0	9,871	0	2,822
60	U. UT	12,160	4,891	7,269	0	0
61	U. Central FL	12,138	12,138	0	0	0
62	U. CA, Irvine	12,130	137	0	0	11,993
63	U. FL	11,766	0	7,756	3,691	319
64	TX Tech U.	11,692	214	4,331	0	7,147
65	U. CA, Berkeley	11,535	60	11,475	0	0
66	NM Institute of Mining and Technology	11,297	0	11,195	0	102
67	San Jose State U.	11,290	812	315	10,114	49
68	TX A&M U., Corpus Christi	11,247	143	1,108	8,831	1,165
69	U. NV, Las Vegas	11,071	0	9,069	0	2,002
70	U. MA, Dartmouth	10,977	0	0	10,977	0
71	OH State U.	10,769	0	10,769	0	0
72	OR Health and Science U.	10,699	0	0	0	10,699
73	CO School of Mines	10,617	0	10,617	0	0

Appendix H. Higher Education R&D Expenditures in the Environmental Sciences, Ranked by all FY 2013 Environmental Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				
		All environmental sciences	Atmospheric sciences	Earth sciences	Ocean-ography	Environmental sciences, nec
74	U. Pittsburgh, Pittsburgh	10,137	0	2,563	0	7,574
75	U. ND	9,675	6,098	3,197	0	380
76	George Mason U.	9,249	2,640	6,562	47	0
77	U. AL, Huntsville	9,123	8,720	403	0	0
78	U. CT	9,094	0	102	8,992	0
79	VA Polytechnic Institute and State U.	9,070	0	9,070	0	0
80	Boston C.	9,009	7,959	1,050	0	0
81	WV U.	8,927	0	7,415	0	1,512
82	U. WI, Milwaukee	8,858	2,377	728	4,365	1,388
83	U. CA, Riverside	8,844	397	2,540	0	5,907
84	U. MS and U. MS, Jackson, Medical Ctr.	8,744	0	189	8,555	0
85	U. IL, Urbana-Champaign	8,471	3,366	5,010	0	95
86	Old Dominion U.	8,457	0	0	8,457	0
87	MT State U., Bozeman	7,556	0	1,706	0	5,850
88	U. PR, Mayaguez	7,517	0	1,527	5,990	0
89	U. SC, Columbia	7,350	0	7,340	10	0
90	San Francisco State U.	7,302	67	722	6,061	452
91	Northern AZ U.	7,286	367	5,799	5	1,115
92	U. Houston	7,276	0	7,276	0	0
93	WA State U.	7,129	219	3,627	5	3,278
94	U. Chicago	7,124	0	7,124	0	0
95	MT Tech of U. MT	6,971	0	6,971	0	0
96	Boston U.	6,850	0	4,045	0	2,805
97	U. TN, Knoxville	6,591	0	2,991	0	3,600
98	U. ID	6,449	397	4,853	0	1,199
99	U. NM	6,190	1,625	4,420	0	145
100	Purdue U., West Lafayette	6,166	6,112	0	0	54

nec = not elsewhere classified.

NOTES: Institutions reporting zero expenditures in ranked total for FY 2013 are not listed in this table. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey.

Data from survey cycle FY 2013, as of 31 July 2014.

Appendix I. Higher Education R&D Expenditures in the Life Sciences, Ranked by all FY 2013 Life Sciences: By Subfield for FY 2013 (Top 100 Institutions)

Rank	Institution	2013				Life sciences, nec
		All life sciences	Agricultural sciences	Biological sciences	Medical sciences	
	All institutions	37,585,200	3,354,198	11,725,053	20,426,577	2,079,372
1	U. CA, San Francisco	1,030,983	0	25,960	1,005,023	0
2	Johns Hopkins U. ^a	870,517	0	244,625	571,174	54,718
3	Duke U.	811,296	0	224,468	559,210	27,618
4	U. MI, Ann Arbor	787,567	13,758	175,804	481,416	116,589
5	U. WA, Seattle	785,369	28,354	187,013	525,056	44,946
6	U. Pittsburgh, Pittsburgh	729,613	0	163,216	534,201	32,196
7	U. NC, Chapel Hill	700,951	0	221,762	355,361	123,828
8	Yale U.	669,872	3,895	169,256	496,721	0
9	U. CA, Los Angeles	667,920	0	27,346	640,574	0
10	U. TX, M. D. Anderson Cancer Ctr.	658,847	0	247,702	411,145	0
11	U. PA	646,852	209	205,395	429,798	11,450
12	U. WI, Madison	640,501	51,353	196,977	385,561	6,610
13	U. CA, San Diego	609,643	0	38,366	571,257	20
14	Washington U., St. Louis	601,162	0	199,433	392,786	8,943
15	Columbia U. in the City of New York	589,526	0	108,307	368,288	112,931
16	U. MN, Twin Cities	585,286	79,217	109,579	390,867	5,623
17	Stanford U.	570,224	0	152,134	355,712	62,378
18	Harvard U.	537,855	0	337,123	187,869	12,863
19	Cornell U.	536,087	70,265	147,092	311,885	6,845
20	U. CA, Davis	523,607	135,397	153,387	234,823	0
21	Baylor C. of Medicine	508,799	0	249,331	259,468	0
22	U. FL	483,948	156,979	116,879	170,706	39,384
23	Emory U.	456,875	0	213,472	235,268	8,135
24	OH State U.	454,561	66,953	82,288	288,361	16,959
25	U. TX, Southwestern Medical Ctr., Dallas	440,620	0	207,398	222,809	10,413
26	Vanderbilt U.	438,963	0	160,683	249,327	28,953
27	Northwestern U.	432,467	0	96,980	317,945	17,542
28	Icahn School of Medicine at Mt. Sinai	428,654	0	215,488	213,166	0
29	U. AL, Birmingham	407,451	0	106,137	293,766	7,548
30	U. MD, Baltimore	403,845	0	136,470	252,023	15,352
31	Scripps Research Institute	399,899	0	399,899	0	0
32	U. CO, Denver and Anschutz Medical Campus	394,011	0	23,207	370,804	0
33	U. Southern CA	371,353	0	31,727	325,153	14,473
34	NY U.	365,271	0	120,829	214,897	29,545
35	U. Cincinnati	356,242	0	59,709	279,564	16,969

Appendix I. Higher Education R&D Expenditures in the Life Sciences, Ranked by all FY 2013 Life Sciences: By Subfield for FY 2013 (Top 100 Institutions)

Rank	Institution	2013				
		All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
36	Case Western Reserve U.	349,940	0	68,010	260,356	21,574
37	U. UT	327,807	0	51,487	188,776	87,544
38	U. IA	326,387	0	95,744	209,266	21,377
39	U. South FL, Tampa	300,183	0	37,220	218,359	44,604
40	TX A&M U., College Station and Health Science Ctr.	299,122	179,022	27,692	92,134	274
41	IN U.-Purdue U., Indianapolis	293,766	0	63,616	219,813	10,337
42	Rockefeller U.	283,443	0	270,195	13,248	0
43	U. AZ	283,327	53,747	93,305	125,014	11,261
44	OR Health and Science U.	274,375	0	136,912	129,461	8,002
45	U. Chicago	274,064	0	103,161	166,601	4,302
46	U. IL, Chicago	273,493	0	65,495	191,198	16,800
47	PA State U., University Park and Hershey Medical Ctr.	272,478	98,418	62,199	111,861	0
48	Yeshiva U.	270,587	0	0	270,587	0
49	MI State U.	258,895	99,886	108,140	39,774	11,095
50	U. Miami	258,330	0	78,966	171,367	7,997
51	U. Rochester	248,618	0	56,857	184,948	6,813
52	U. MA, Medical School	245,923	0	77,287	121,754	46,882
53	Medical U. SC	245,451	0	70,567	104,159	70,725
54	SUNY, Buffalo	245,354	0	66,276	170,898	8,180
55	U. VA, Charlottesville	244,720	0	66,298	171,765	6,657
56	Boston U.	242,154	0	56,593	176,897	8,664
57	U. TX, Health Science Ctr., Houston	233,256	0	45,523	86,958	100,775
58	U. KY	230,343	54,715	62,866	107,149	5,613
59	Rutgers, State U. NJ, New Brunswick	228,375	39,767	71,200	73,261	44,147
60	U. IL, Urbana-Champaign	217,191	136,333	64,187	15,272	1,399
61	U. of Medicine and Dentistry of NJ	214,299	0	106,105	108,194	0
62	U. GA	212,754	73,020	114,429	21,442	3,863
63	Purdue U., West Lafayette	210,663	111,740	47,726	37,878	13,319
64	U. CA, Berkeley	208,236	68,073	69,642	70,521	0
65	VA Polytechnic Institute and State U.	206,550	101,212	65,767	35,170	4,401
66	Medical C. WI	201,237	0	59,332	141,905	0
67	U. CA, Irvine	199,354	0	83,644	115,710	0
68	U. KS	198,933	3,124	79,048	99,083	17,678
69	NC State U.	191,061	91,364	84,580	9	15,108
70	Wake Forest U.	178,835	0	1,018	175,622	2,195
71	U. TX, Health Science Ctr., San Antonio	175,983	0	52,246	117,001	6,736

Appendix I. Higher Education R&D Expenditures in the Life Sciences, Ranked by all FY 2013 Life Sciences: By Subfield for FY 2013 (Top 100 Institutions)

Rank	Institution	2013				
		All life sciences	Agricultural sciences	Biological sciences	Medical sciences	Life sciences, nec
72	U. MO, Columbia	173,443	89,529	23,820	53,525	6,569
73	U. TX, Medical Branch	173,007	0	111,050	61,957	0
74	Temple U.	171,232	619	20,236	105,491	44,886
75	WA State U.	166,989	87,911	52,596	12,963	13,519
76	Uniformed Services U. of the Health Sciences	165,335	0	8,854	156,481	0
77	Wayne State U.	162,344	0	26,975	127,425	7,944
78	LA State U., Baton Rouge	158,652	71,502	82,958	3,730	462
79	Dartmouth C.	151,143	0	71,017	80,126	0
80	Georgetown U.	144,938	0	9,951	131,110	3,877
81	U. CT	140,472	5,784	76,549	56,508	1,631
82	U. NE, Medical Ctr.	137,485	52	66,194	70,159	1,080
83	IA State U.	134,524	54,489	57,804	17,270	4,961
84	U. AR for Medical Sciences	133,677	0	39,947	87,446	6,284
85	CO State U., Ft. Collins	133,133	38,320	35,055	59,017	741
86	U. Louisville	132,093	167	39,404	80,021	12,501
87	George Washington U.	131,005	69	23,348	72,698	34,890
88	Tulane U.	130,354	0	28,373	31,735	70,246
89	VA Commonwealth U.	129,330	0	44,643	68,907	15,780
90	U. OK, Norman and Health Science Ctr.	126,391	0	48,113	73,103	5,175
91	U. NM	125,550	0	36,589	83,446	5,515
92	U. NE, Lincoln	121,938	71,542	46,388	755	3,253
93	OR State U.	120,571	71,106	43,396	4,246	1,823
94	U. HI, Manoa	120,481	24,517	8,629	76,953	10,382
95	MA Institute of Technology	118,946	0	79,364	25,006	14,576
96	Brown U.	114,981	0	40,708	48,860	25,413
97	KS State U.	111,800	69,352	41,233	1,215	0
98	Tufts U.	111,436	0	80,404	31,032	0
99	SUNY, U. Albany	107,265	0	102,567	4,682	16
100	U. SC, Columbia	106,214	4,613	37,005	57,958	6,638

i = imputed. na = not applicable; institution did not exist or did not exist as a separate entity. NA = not available; institution was not surveyed separately. ne = not eligible; institution did not meet the criteria for inclusion.

sewhere classified.

th \$22,937 thousand in total R&D expenditures in life sciences in FY 2013.

Appendix J. Total and Federally Financed Higher Education R&D Expenditures in the Mathematical Sciences, Ranked by FY 2013 total: FYs 2010–13 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
	All institutions	594,254	640,318	674,200	670,988	417,758	458,925	490,438	464,500
1	Johns Hopkins U. ^a	31,218	32,764	40,467	41,136	28,746	30,318	39,022	39,480
2	NC State U.	18,384	18,202	20,846	22,207	10,112	10,548	11,843	13,197
3	Rutgers, State U. NJ, New Brunswick	14,763	17,011	17,184	19,357	9,494	11,993	12,582	13,058
4	U. TX, Austin	27,593	19,814	19,058	17,470	16,349	12,808	11,508	9,602
5	Brown U.	11,228	13,059	14,599	16,462	7,148	9,243	9,765	10,520
6	U. TX, M. D. Anderson Cancer Ctr.	20,432	20,185	21,258	16,068	5,614	5,999	5,985	5,229
7	U. MI, Ann Arbor	12,468	14,148	14,142	15,680	5,435	7,484	7,030	6,944
8	TX A&M U., College Station and Health Science Ctr.	10,127	11,719	12,378	13,023	5,787	5,586	6,274	6,329
9	U. MN, Twin Cities	10,904	11,130	10,469	12,295	8,258	8,338	7,772	8,991
10	Duke U.	8,921	9,581	10,532	12,199	6,903	7,067	9,026	10,972
11	PA State U., University Park and Hershey Medical Ctr.	12,278	11,732	12,042	11,930	8,413	8,815	9,570	9,385
12	Princeton U.	8,014	9,295	11,695	11,788	6,647	7,040	8,742	8,328
13	U. CA, Los Angeles	7,426	8,308	8,640	11,506	6,097	6,831	7,381	8,972
14	IA State U.	11,049	11,083	11,736	11,268	5,274	4,220	5,639	4,893
15	NY U.	9,244	11,077	10,001	11,056	8,639	10,643	9,475	10,005
16	Harvard U.	6,078	6,687	9,573	10,988	5,994	6,570	9,185	9,266
17	MI State U.	4,488	5,000	6,540	10,413	3,641	3,827	4,823	6,385
18	Stanford U.	10,782	10,170	9,525	10,152	8,469	7,890	8,687	9,181
19	MA Institute of Technology	7,281	8,293	8,883	9,329	7,146	7,725	7,374	7,436
20	CA Institute of Technology	2,410	812	9,841	9,150	2,278	812	9,227	8,429
21	OH State U.	7,527	7,654	8,826	8,888	6,345	6,604	7,575	7,753
22	SUNY, Stony Brook U.	7,129	8,186	9,242	8,510	4,383	4,417	4,332	3,471
23	Purdue U., West Lafayette	6,530	6,862	7,349	8,136	4,788	4,923	5,129	5,380
24	Rice U.	5,215	6,272	5,873	7,799	3,890	4,634	4,435	4,727
25	U. MD, College Park	7,259	7,208	7,218	7,632	5,678	5,977	5,814	5,881
26	U. CA, Berkeley	7,025	6,435	6,139	7,495	6,031	5,576	5,247	6,009
27	U. WI, Madison	6,246	6,359	6,942	6,776	4,408	4,440	5,393	4,600
28	GA Institute of Technology	7,759	8,110	6,876	6,482	2,573	2,876	3,007	2,710
29	U. NC, Chapel Hill	3,940	5,176	4,846	6,212	3,365	4,511	4,214	5,355
30	Carnegie Mellon U.	3,040	3,132	4,581	6,142	2,877	2,936	3,884	5,365
31	U. WA, Seattle	5,105	29,706	34,632	6,027	4,770	27,972	33,271	5,380
32	U. AZ	2,753	2,901	4,006	6,003	2,189	2,180	2,440	2,299
33	U. NE, Lincoln	5,039	5,086	8,139	5,753	1,790	1,931	4,576	2,197
34	U. UT	3,509	4,031	3,691	5,633	3,063	3,242	2,906	3,792
35	U. GA	4,542	5,334	5,078	5,525	1,958	1,773	1,347	1,567

Appendix J. Total and Federally Financed Higher Education R&D Expenditures in the Mathematical Sciences, Ranked by FY 2013 total: FYs 2010–13 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
36	Air Force Institute of Technology	3,345	3,922	4,739	5,225	1,949	2,863	3,586	4,415
37	U. CA, San Diego	4,512	4,594	4,450	5,100	3,120	3,763	3,380	4,138
38	AZ State U.	6,412	4,162	4,921	4,893	4,966	3,243	3,782	3,797
39	NJ Institute of Technology	4,051	4,499	4,098	4,790	2,037	2,303	2,122	2,201
40	TX Tech U.	4,390	4,414	4,588	4,664	1,580	2,096	1,977	1,694
41	U. CA, Irvine	3,515	3,837	4,466	4,651	2,788	3,006	3,657	3,643
42	U. SC, Columbia	2,488	2,541	2,734	4,572	1,988	2,528	1,826	4,037
43	U. Pittsburgh, Pittsburgh	4,114	4,123	3,886	4,484	2,589	2,475	2,782	3,175
44	Naval Postgraduate School	5,181	7,196	7,725	4,385	4,913	6,894	7,554	3,736
45	U. CA, Davis	3,508	3,814	3,704	4,355	2,569	2,831	2,932	3,315
46	Boston U.	3,089	3,836	3,378	4,342	2,546	3,296	2,957	3,396
47	U. Chicago	4,355	3,578	4,575	4,335	4,034	3,086	3,713	3,898
48	U. IL, Urbana-Champaign	3,728	3,533	3,881	4,174	3,323	3,121	3,203	3,241
49	U. Southern CA	3,896	3,079	3,585	4,159	2,723	2,325	3,052	3,375
50	Cornell U.	5,461	4,857	3,727	4,145	4,659	4,159	3,335	2,958
51	Columbia U. in the City of New York	4,608	5,715	5,022	3,792	4,210	5,139	4,399	2,666
52	CO State U., Ft. Collins	2,150	2,492	3,207	3,681	1,793	2,114	2,631	2,906
53	VA Polytechnic Institute and State U.	3,394	3,833	3,358	3,681	1,458	1,849	1,563	1,879
54	U. PA	2,856	3,629	3,337	3,617	2,614	3,311	3,042	3,349
55	VA Commonwealth U.	1,882	1,853	2,572	3,606	1,876	1,837	2,493	3,549
56	U. IL, Chicago	3,184	2,822	2,854	3,565	2,249	2,146	2,203	2,644
57	FL State U.	4,042	5,875	5,221	3,325	2,998	3,955	3,554	1,850
58	U. Notre Dame	2,186	2,151	2,320	3,180	1,886	1,778	1,686	1,970
59	Yale U.	2,698	3,484	2,653	3,123	2,157	2,215	2,173	2,266
60	Tufts U.	348	682	1,895	2,669	340	577	1,832	2,490
61	Northwestern U.	2,325	2,802	2,849	2,648	1,982	2,180	2,157	1,729
62	IN U., Bloomington	2,539	2,682	2,373	2,557	1,771	1,786	1,497	1,652
63	CA State U., San Bernardino	552	1,457	2,161	2,519	365	1,071	1,854	1,875
64	Clemson U.	3,499	3,434	1,853	2,438	731	743	834	746
65	Emory U.	1,006	186	1,706	2,363	1,006	0	1,487	1,949
66	George Mason U.	785	1,305	2,014	2,330	496	1,081	1,728	1,981
67	U. MO, Columbia	2,210	1,760	2,003	2,320	2,126	1,677	1,911	2,232
68	San Diego State U.	2,937	3,851	3,329	2,313	2,207	2,133	1,694	1,035
69	OK State U., Stillwater	2,558	2,402	2,429	2,309	118	150	209	186
70	Rutgers, State U. NJ, Newark	485	655	772	2,252	285	558	675	856
71	U. FL	2,957	3,002	3,158	2,218	1,738	1,759	1,931	1,250

Appendix J. Total and Federally Financed Higher Education R&D Expenditures in the Mathematical Sciences, Ranked by FY 2013 total: FYs 2010–13 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
72	Tulane U.	3,443	2,184	1,882	2,182	2,086	1,141	909	1,053
73	U. Houston	2,662	1,829	2,003	2,158	1,495	1,085	1,124	1,556
74	SUNY, Binghamton U.	2,404	1,861	2,169	2,149	382	247	301	251
75	U. DE	1,383	1,602	2,349	2,142	1,230	1,355	1,946	1,822
76	U. KY	2,445	2,532	2,035	2,141	1,892	1,999	1,499	1,632
77	Rensselaer Polytechnic Institute	3,114	2,844	2,715	2,060	2,703	2,499	2,337	1,806
78	Elizabeth City State U.	4,273	7,974	2,455	2,052	4,273	7,924	2,436	2,052
79	U. MA, Amherst	2,817	2,591	3,254	1,960	1,983	2,097	2,174	1,358
80	LA State U., Baton Rouge	2,270	2,511	2,490	1,946	1,526	1,507	1,464	1,382
81	Old Dominion U.	2,425	1,968	2,298	1,923	701	492	609	681
82	San Francisco State U.	1,361	1,449	1,833	1,886	1,093	1,342	1,263	1,413
83	Western MI U.	1,417	1,947	2,281	1,860	1,374	1,686	1,745	1,475
84	U. South FL, Tampa	827	974	1,159	1,830	496	596	663	859
85	U. CO, Boulder	2,881	2,991	2,426	1,783	2,623	2,991	2,415	1,775
86	U. LA, Lafayette	1,266	1,675	1,667	1,774	249	521	575	498
87	MI Technological U.	1,854	1,624	1,645	1,772	149	118	77	163
88	Rockefeller U.	1,466	1,323	1,089	1,749	546	669	386	640
89	U. Cincinnati	855	1,175	1,342	1,707	176	335	413	838
90	George Washington U.	1,744	1,971	1,554	1,688	1,055	1,068	779	1,052
91	U. TX, Arlington	1,293	1,895	2,385	1,664	858	1,231	1,194	666
92	U. TX, El Paso	2,333	1,419	1,477	1,658	1,388	893	648	799
93	WA State U.	1,181	1,317	1,448	1,630	960	990	1,116	1,157
94	U. MD, Baltimore County	1,311	1,486	2,177	1,593	254	504	985	860
95	DE State U.	1,851	1,607	1,418	1,552	1,760	1,563	1,410	1,552
96	U. NM	2,306	2,493	1,892	1,547	2,153	2,396	1,783	1,350
97	Rochester Institute of Technology	642	714	1,161	1,541	595	626	1,029	1,244
98	U. CO, Denver and Anschutz Medical Campus	573	1,146	850	1,499	571	1,143	844	1,463
99	Northeastern U.	1,075	1,155	976	1,448	983	1,060	836	1,212
100	U. CA, Santa Barbara	1,324	1,389	1,207	1,432	1,161	1,275	1,123	1,289

tion did not meet the criteria for inclusion.

^a Johns Hopkins University includes Applied Physics Laboratory, with \$38,665 thousand in total and \$37,607 thousand in federally financed R&D expenditures in mathematical sciences in FY 2013.

Appendix K. Higher Education R&D Expenditures in the Physical Sciences, Ranked by all FY 2013 Physical Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				Physical sciences, nec
		All physical sciences	Astronomy	Chemistry	Physics	
	All institutions	4,646,023	558,467	1,706,470	2,093,374	287,712
1	CA Institute of Technology	202,125	5,652	46,430	150,043	0
2	U. AZ	186,349	138,952	17,255	30,142	0
3	Johns Hopkins U. ^a	179,519	28,577	24,947	95,183	30,812
4	MA Institute of Technology	107,399	25,793	19,297	55,135	7,174
5	Cornell U.	104,856	15,850	20,950	44,107	23,949
6	Stanford U.	101,122	0	20,633	9,210	71,279
7	MI State U.	100,521	0	13,213	87,308	0
8	U. MD, College Park	95,244	21,079	10,400	62,112	1,653
9	U. CO, Boulder	91,830	32,414	20,096	35,367	3,953
10	U. CA, Berkeley	90,346	45,611	25,954	17,500	1,281
11	U. TX, Austin	86,197	13,568	24,649	46,290	1,690
12	U. WI, Madison	81,295	5,582	22,968	33,093	19,652
13	Harvard U.	77,203	10,476	35,641	29,481	1,605
14	FL State U.	71,387	94	13,871	57,367	55
15	U. CA, San Diego	66,614	0	31,353	33,540	1,721
16	U. CA, Los Angeles	66,097	0	18,486	45,413	2,198
17	U. IL, Urbana-Champaign	60,210	2,762	29,131	28,297	20
18	Princeton U.	58,339	6,982	16,829	34,528	0
19	GA Institute of Technology	56,660	0	37,960	18,700	0
20	U. Chicago	56,485	16,223	17,180	11,998	11,084
21	PA State U., University Park and Hershey Medical Ctr.	56,482	9,418	18,213	28,851	0
22	U. MI, Ann Arbor	49,588	6,125	23,168	20,295	0
23	Northwestern U.	46,695	0	35,547	9,052	2,096
24	Rutgers, State U. NJ, New Brunswick	46,195	1,208	25,026	18,127	1,834
25	TX A&M U., College Station and Health Science Ctr.	45,768	356	22,378	20,022	3,012
26	U. MN, Twin Cities	45,720	2,082	16,413	27,225	0
27	U. WA, Seattle	45,294	7,588	17,404	20,302	0
28	IN U., Bloomington	45,132	2,078	20,125	22,929	0
29	U. CA, Santa Barbara	43,333	2,583	10,312	29,616	822
30	Columbia U. in the City of New York	42,358	7,807	11,681	22,870	0
31	Yale U.	40,795	7,180	16,020	17,595	0
32	U. CA, Irvine	38,331	0	22,450	15,881	0
33	U. Notre Dame	37,832	0	21,896	15,936	0
34	U. HI, Manoa	37,276	28,815	1,912	5,127	1,422
35	SUNY, Stony Brook U.	36,776	1,525	17,273	17,818	160
36	U. CA, Santa Cruz	34,701	18,855	6,157	9,481	208
37	U. NC, Chapel Hill	33,970	0	23,595	10,375	0
38	Rice U.	32,901	0	16,661	16,240	0
39	OH State U.	31,990	3,042	12,816	15,733	399

Appendix K. Higher Education R&D Expenditures in the Physical Sciences, Ranked by all FY 2013 Physical Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				Physical sciences, nec
		All physical sciences	Astronomy	Chemistry	Physics	
40	U. MA, Amherst	31,488	4,245	19,234	8,009	0
41	U. CA, Davis	31,471	0	13,923	9,689	7,859
42	Boston U.	31,461	1,711	11,600	15,275	2,875
43	U. Pittsburgh, Pittsburgh	30,016	2,099	17,116	10,801	0
44	Purdue U., West Lafayette	29,714	0	16,750	12,964	0
45	U. FL	28,606	4,353	11,987	11,892	374
46	U. PA	27,877	0	11,780	16,097	0
47	Vanderbilt U.	25,026	0	12,308	12,718	0
48	U. Central FL	24,109	0	5,578	18,531	0
49	AZ State U.	23,855	947	16,048	6,201	659
50	U. VA, Charlottesville	22,952	3,635	9,535	9,782	0
51	U. IA	22,539	1,465	6,254	14,820	0
52	WA State U.	22,262	29	7,453	12,170	2,610
53	U. NE, Lincoln	21,808	0	6,218	15,590	0
54	LA State U., Baton Rouge	21,682	0	10,093	11,511	78
55	Northeastern U.	21,242	0	9,988	11,254	0
56	U. OR	20,647	0	9,605	9,671	1,371
57	Duke U.	20,489	0	7,275	13,214	0
58	Emory U.	20,392	0	18,685	1,707	0
59	U. Akron	20,338	0	20,276	62	0
60	VA Polytechnic Institute and State U.	19,439	0	10,402	8,189	848
61	U. UT	18,725	0	11,570	7,155	0
62	MT State U., Bozeman	18,614	0	11,185	7,170	259
63	U. KS	18,227	438	13,444	4,345	0
64	Brown U.	18,202	0	8,090	10,112	0
65	Wayne State U.	18,108	0	9,471	4,917	3,720
66	U. TN, Knoxville	18,067	0	7,672	10,395	0
67	Catholic U. of America	17,579	0	652	6,917	10,010
68	SUNY, Buffalo	17,519	0	10,473	7,046	0
69	NC State U.	17,045	0	7,658	7,747	1,640
70	U. DE	17,004	2,674	7,482	6,848	0
71	IA State U.	16,777	0	7,836	8,941	0
72	NM State U.	16,632	7,149	7,084	2,156	243
73	U. Southern CA	16,609	892	13,707	2,010	0
74	Washington U., St. Louis	16,520	0	6,649	9,871	0
75	U. TX, M. D. Anderson Cancer Ctr.	15,262	0	0	15,262	0
76	U. TX, Dallas	14,394	3,661	4,536	1,745	4,452
77	ND State U.	14,329	0	7,070	837	6,422
78	U. Houston	14,309	0	6,767	7,518	24
79	Jackson State U.	14,239	0	5,493	2,931	5,815

Appendix K. Higher Education R&D Expenditures in the Physical Sciences, Ranked by all FY 2013 Physical Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				Physical sciences, nec
		All physical sciences	Astronomy	Chemistry	Physics	
80	NJ Institute of Technology	14,239	0	1,562	12,677	0
81	CO State U., Ft. Collins	14,218	0	9,744	4,474	0
82	U. MA, Lowell	14,194	0	3,497	10,697	0
83	U. CA, Riverside	13,804	0	7,319	6,485	0
84	U. Rochester	13,733	0	6,410	7,323	0
85	U. OK, Norman and Health Science Ctr.	13,702	0	8,831	4,871	0
86	NY U.	13,606	0	7,281	6,325	0
87	U. IL, Chicago	13,021	0	6,528	6,493	0
88	U. MS and U. MS, Jackson, Medical Ctr.	12,957	0	1,275	11,682	0
89	Carnegie Mellon U.	12,816	0	3,601	7,494	1,721
90	Case Western Reserve U.	12,676	332	4,209	7,943	192
91	U. Toledo	12,334	1,333	2,323	8,678	0
92	U. SC, Columbia	12,180	0	8,017	4,163	0
93	U. CA, Office of the President	11,906	11,906	0	0	0
94	U. GA	11,880	0	7,668	4,212	0
95	U. CA, San Francisco	11,858	0	11,858	0	0
96	U. Southern MS	11,413	0	11,151	262	0
97	U. NM	11,341	0	2,708	8,383	250
98	U. AK, Fairbanks	11,209	11,161	48	0	0
99	Rensselaer Polytechnic Institute	11,130	0	3,214	7,916	0
100	KS State U.	11,038	0	2,816	8,222	0

tion did not meet the criteria for inclusion.

sewhere classified.

152,314 thousand in total R&D expenditures in physical sciences in FY 2013.

NOTES. Institutions reporting zero expenditures in ranked total for FY 2013 are not listed in this table. These institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

Engineering Statistics, Higher Education Research and Development Survey.

FY 2013, as of 31 July 2014.

Appendix L. Total and Federally Financed Higher Education R&D Expenditures in Psychology, Ranked by FY 2013 total: FYs 2010–13 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
	All institutions	1,078,419	1,158,638	1,188,397	1,151,702	758,467	834,866	867,195	789,164
1	U. NC, Chapel Hill	12,039	41,459	44,595	46,285	10,784	27,326	27,203	27,359
2	PA State U., University Park and Hershey Medical Ctr.	34,353	29,686	31,056	28,526	25,933	21,713	22,737	20,806
3	U. MN, Twin Cities	18,201	22,779	21,661	25,041	13,985	18,139	16,633	18,187
4	FL State U.	21,278	22,933	21,396	24,704	13,481	15,939	15,055	18,153
5	U. MI, Ann Arbor	21,119	22,281	24,914	24,244	12,126	14,211	15,451	14,709
6	Duke U.	21,797	23,325	17,778	23,851	13,271	14,584	15,583	20,433
7	U. CT	19,191	23,165	24,290	22,981	15,155	18,031	18,011	16,788
8	U. CA, San Diego	21,550	25,418	25,447	21,353	16,122	19,287	17,392	14,132
9	NY U.	18,797	17,826	20,726	21,235	15,594	15,464	18,043	18,492
10	U. GA	15,658	19,285	21,072	20,680	9,228	11,745	13,271	12,646
11	U. IL, Urbana-Champaign	15,426	16,045	16,546	18,190	10,464	11,045	10,255	9,948
12	U. NE, Lincoln	10,544	12,791	13,690	17,889	6,154	8,493	9,150	9,996
13	U. TX, M. D. Anderson Cancer Ctr.	21,296	22,452	22,921	17,292	6,777	8,735	7,803	6,583
14	Uniformed Services U. of the Health Sciences	14,562	12,411	9,606	16,402	8,343	8,700	8,401	12,721
15	U. CO, Boulder	15,005	17,105	17,584	16,293	13,101	15,250	15,214	14,652
16	San Jose State U.	11,912	14,356	14,284	15,798	11,588	14,041	13,648	15,040
17	U. Rochester	15,040	17,643	17,991	15,621	12,786	14,680	15,411	13,160
18	Rutgers, State U. NJ, New Brunswick	14,888	15,595	12,779	15,386	6,976	7,285	7,668	6,375
19	U. PA	8,044	9,128	10,321	14,512	7,438	8,346	8,892	11,347
20	U. IL, Chicago	7,442	10,848	13,430	14,156	4,744	8,214	9,140	9,453
21	Vanderbilt U.	12,472	13,821	14,234	13,990	10,541	11,610	12,223	11,414
22	IN U., Bloomington	15,789	15,162	11,884	13,008	9,285	9,491	7,298	7,283
23	Boston U.	11,417	11,226	12,819	12,726	10,533	10,367	11,585	9,925
24	Temple U.	11,978	11,306	10,941	12,707	8,978	8,209	8,387	10,266
25	San Diego State U.	19,535	18,694	14,677	12,592	11,891	13,826	11,384	9,061
26	AZ State U.	11,363	12,726	12,419	12,104	9,187	10,109	10,383	8,962
27	Stanford U.	11,857	13,865	11,713	11,799	10,027	11,031	8,260	7,701
28	U. South FL, Tampa	15,353	13,855	14,624	11,508	10,481	9,777	8,792	7,164
29	U. Chicago	7,502	7,796	9,947	11,504	7,417	7,718	9,797	9,509
30	U. CA, Los Angeles	15,186	17,347	13,961	11,099	10,732	12,427	8,987	7,140
31	OH State U.	12,397	13,326	12,683	11,069	8,658	10,908	10,551	9,000
32	U. Houston	14,332	10,172	10,876	10,964	7,497	7,756	8,700	8,802
33	U. Pittsburgh, Pittsburgh	9,183	9,787	9,905	10,908	7,523	8,066	8,421	9,169
34	Cornell U.	6,227	7,603	8,079	10,506	3,055	3,739	3,435	3,972
35	CUNY, Hunter C.	7,519	8,318	9,421	10,492	4,670	6,026	6,794	7,874
36	SUNY, Binghamton U.	7,958	9,445	11,384	10,229	4,380	4,741	4,720	4,350
37	Carnegie Mellon U.	9,473	9,829	10,812	10,125	8,253	8,536	9,068	8,840
38	Princeton U.	11,754	8,909	9,810	9,991	7,460	5,694	5,534	4,475

Appendix L. Total and Federally Financed Higher Education R&D Expenditures in Psychology, Ranked by FY 2013 total: FYs 2010–13 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
39	U. Miami	12,000	13,057	11,559	9,739	10,886	11,351	8,671	6,963
40	Yale U.	10,854	10,335	7,912	9,694	5,218	4,769	4,286	4,304
41	U. Southern CA	8,374	8,303	10,488	9,642	6,325	7,479	8,249	6,963
42	U. KY	13,075	12,112	11,048	9,477	9,930	9,824	8,773	7,479
43	U. NM	9,295	11,906	13,487	9,435	7,918	9,769	11,720	8,152
44	Fuller Theological Seminary	384	842	ne	9,390	0	0	ne	0
45	UT State U.	4,393	6,512	8,353	9,264	2,289	4,883	6,310	6,947
46	U. WA, Seattle	7,586	9,379	8,395	9,203	7,586	8,745	7,850	7,980
47	GA State U.	6,264	6,146	5,486	9,105	3,974	3,576	3,240	3,799
48	MI State U.	5,719	7,153	8,894	9,103	4,197	5,226	6,827	6,648
49	U. IA	7,827	8,635	8,906	8,929	6,320	6,458	6,791	6,851
50	U. OR	10,287	9,734	9,010	8,730	9,148	8,652	8,225	7,855
51	U. TX, Austin	8,312	8,988	9,429	8,375	7,274	7,531	7,245	6,943
52	U. MD, College Park	5,776	6,566	7,203	7,652	3,894	4,955	5,519	6,022
53	Tufts U.	4,213	4,351	5,362	7,634	1,990	1,954	2,220	2,542
54	U. VA, Charlottesville	7,041	9,171	8,626	7,595	6,136	7,032	6,715	5,922
55	U. SC, Columbia	7,692	5,559	7,467	7,358	7,692	4,554	4,476	5,418
56	U. CA, Irvine	6,816	7,825	8,947	7,325	5,326	6,169	6,429	5,383
57	U. CA, Berkeley	9,227	10,401	8,568	7,081	5,813	6,680	5,364	4,055
58	GA Institute of Technology	5,952	6,773	6,249	7,070	3,593	4,102	4,312	5,235
59	Harvard U.	5,757	5,821	4,247	6,842	5,587	5,496	3,649	4,035
60	Washington U., St. Louis	7,378	7,804	7,169	6,701	5,441	5,696	4,779	4,190
61	U. Memphis	8,313	8,295	6,586	6,459	3,814	4,096	2,964	2,498
62	U. FL	11,511	9,584	6,522	6,422	6,621	6,025	4,160	4,795
63	George Mason U.	4,760	5,861	6,160	6,234	3,987	4,918	5,146	5,333
64	U. CA, Santa Barbara	10,425	8,125	6,837	6,024	4,944	5,372	5,673	4,630
65	FL International U.	2,215	4,608	3,459	5,761	1,832	3,116	2,557	3,527
66	SUNY, Stony Brook U.	7,037	8,087	6,089	5,748	4,567	4,801	3,458	2,917
67	U. WI, Madison	6,731	7,251	5,678	5,285	4,602	4,623	3,591	3,510
68	U. TX, El Paso	2,274	4,350	5,013	5,263	1,149	2,829	2,916	3,780
69	Wayne State U.	3,687	4,993	5,164	4,915	2,256	2,909	3,888	3,616
70	U. Notre Dame	3,131	3,809	4,160	4,589	2,460	2,480	2,548	2,471
71	U. CA, Davis	3,497	4,210	3,473	4,536	1,872	2,647	2,014	2,576
72	U. AZ	4,095	3,625	3,461	4,524	2,302	2,111	1,979	2,285
73	Purdue U., West Lafayette	6,737	4,809	5,817	4,520	4,500	4,295	4,879	3,293
74	Teachers C., Columbia U.	4,370	5,236	5,532	4,465	3,772	4,737	5,078	3,831
75	Northwestern U.	4,301	3,880	4,184	4,461	3,462	3,088	2,980	2,645
76	U. MA, Amherst	4,560	5,166	4,865	4,455	2,939	3,066	3,300	3,169
77	Northeastern U.	1,582	1,990	3,209	4,422	1,125	1,878	2,530	3,258
78	Columbia U. in the City of New York	6,639	7,614	6,633	4,288	6,149	6,921	5,868	3,700

Appendix L. Total and Federally Financed Higher Education R&D Expenditures in Psychology, Ranked by FY 2013 total: FYs 2010–13 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	Total				Federally financed			
		2010	2011	2012	2013	2010	2011	2012	2013
79	Johns Hopkins U. ^a	5,126	5,374	5,493	4,213	4,638	4,881	4,900	3,521
80	ND State U.	1,747	2,895	3,261	4,040	1,418	2,714	2,964	2,207
81	SUNY, Buffalo	7,224	5,857	5,076	4,037	4,742	4,193	3,477	2,708
82	U. MA, Boston	9,031	7,035	5,478	3,866	4,922	2,825	3,751	2,350
83	Dartmouth C.	6,294	6,336	5,553	3,723	4,745	4,660	4,612	3,174
84	U. UT	2,525	1,576	2,100	3,681	1,314	966	1,051	2,184
85	VA Commonwealth U.	4,246	4,004	4,759	3,632	3,308	3,464	4,184	3,254
86	U. Denver	4,276	4,114	3,464	3,589	4,038	3,595	2,873	3,061
87	George Washington U.	5,836	4,880	3,321	3,585	3,272	2,638	2,448	2,684
88	TX Tech U.	1,390	1,338	1,673	3,577	110	150	70	149
89	San Francisco State U.	2,099	2,193	3,077	3,561	1,898	1,864	2,438	2,830
90	TX A&M U., College Station and Health Science Ctr.	5,396	4,338	3,282	3,547	3,532	3,181	2,330	2,140
91	Brown U.	3,938	4,088	4,358	3,487	2,436	2,894	3,373	3,471
92	U. WI, Milwaukee	1,473	2,139	3,455	3,422	1,152	1,736	2,829	2,938
93	Rush U.	2,238	2,827	3,248	3,405	2,191	2,790	2,180	2,474
94	U. DE	3,418	4,306	3,872	3,336	2,997	3,796	3,377	2,914
95	Drexel U.	2,693	3,593	3,345	3,125	1,695	2,102	2,584	2,524
96	U. VT	3,083	3,082	2,892	3,068	2,982	3,012	2,883	2,904
97	U. NC, Greensboro	2,504	2,433	1,796	2,976	2,263	2,098	1,708	2,588
98	Rensselaer Polytechnic Institute	2,162	3,085	3,271	2,946	1,999	2,862	3,016	2,751
99	OH U.	1,747	1,868	2,243	2,871	848	1,304	1,740	2,136
100	Old Dominion U.	3,212	3,004	3,178	2,854	962	1,043	1,184	1,257

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

^a Johns Hopkins University includes Applied Physics Laboratory, with \$0 in both total and federally financed R&D expenditures in psychology in FY 2013.

ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey.

Data from survey cycle FY 2013, as of 31 July 2014.

Appendix M. Higher Education R&D Expenditures in the Social Sciences, Ranked by all FY 2013 Social Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				Social sciences, nec
		All social sciences	Economics	Political sciences	Sociology	
	All institutions	2,170,024	407,157	426,837	480,943	855,087
1	U. MI, Ann Arbor	157,990	30,865	27,412	25,864	73,849
2	U. NC, Chapel Hill	93,515	153	4,461	73,388	15,513
3	U. MD, College Park	84,186	2,039	5,480	3,140	73,527
4	Harvard U.	83,825	7,688	31,574	3,010	41,553
5	Rutgers, State U. NJ, New Brunswick	58,636	3,014	11,345	2,402	41,875
6	U. CA, Berkeley	48,318	23,486	5,022	3,912	15,898
7	U. WI, Madison	45,731	9,438	3,717	11,534	21,042
8	AZ State U.	41,366	2,226	12,199	15,689	11,252
9	U. CA, Los Angeles	40,452	265	1,220	4,625	34,342
10	Cornell U.	34,466	19,729	424	10,440	3,873
11	MI State U.	34,101	16,990	4,186	2,807	10,118
12	U. MN, Twin Cities	33,061	6,960	6,852	16,831	2,418
13	IN U., Bloomington	29,449	2,090	9,592	6,003	11,764
14	PA State U., University Park and Hershey Medical Ctr.	27,684	2,639	4,235	20,810	0
15	Purdue U., West Lafayette	25,159	11,016	461	9,987	3,695
16	George Washington U.	25,111	1,730	12,576	2,320	8,485
17	Princeton U.	24,443	1,625	21,046	1,362	410
18	WA State U.	24,058	3,957	1,207	1,395	17,499
19	U. PA	23,945	1,244	3,609	6,770	12,322
20	George Mason U.	23,916	12,315	4,021	1,669	5,911
21	U. CA, Davis	23,813	8,284	1,397	1,362	12,770
22	MS State U.	23,508	1,371	1,206	1,490	19,441
23	U. Southern CA	22,835	1,212	750	6,168	14,705
24	U. AZ	21,984	6,662	1,718	7,212	6,392
25	Stanford U.	21,511	3,951	6,502	5,370	5,688
26	Duke U.	21,251	3,858	10,143	5,724	1,526
27	OH State U.	19,784	4,401	5,284	2,636	7,463
28	U. IL, Urbana-Champaign	18,473	6,778	7,762	1,302	2,631
29	Brandeis U.	17,816	2	95	17,719	0
30	U. GA	17,605	6,014	4,239	3,740	3,612
31	U. CA, San Diego	17,421	2,699	9,260	3,658	1,804
32	U. CO, Boulder	16,865	118	829	13,202	2,716
33	MA Institute of Technology	16,580	7,827	3,879	245	4,629
34	GA State U.	16,568	9,328	3,207	1,721	2,312
35	Georgetown U.	16,470	294	14,674	345	1,157
36	Northwestern U.	16,386	1,778	12,157	900	1,551
37	U. TX, Austin	16,270	306	465	8,253	7,246
38	TX Tech U.	15,676	2,741	827	674	11,434
39	Brown U.	15,463	3,774	2,019	6,221	3,449

Appendix M. Higher Education R&D Expenditures in the Social Sciences, Ranked by all FY 2013 Social Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				Social sciences, nec
		All social sciences	Economics	Political sciences	Sociology	
40	NC State U.	15,199	4,964	471	632	9,132
41	U. NE, Lincoln	14,952	3,818	5,899	3,037	2,198
42	U. Chicago	14,927	6,658	2,532	1,207	4,530
43	ND State U.	14,883	4,314	137	496	9,936
44	American U.	14,718	1,429	7,004	1,531	4,754
45	U. CA, Santa Barbara	14,158	610	152	836	12,560
46	U. FL	13,818	4,995	97	2,175	6,551
47	U. WA, Seattle	13,729	147	4,120	7,243	2,219
48	IA State U.	13,507	3,941	307	9,259	0
49	TX A&M U., College Station and Health Science Ctr.	13,425	2,833	2,875	2,187	5,530
50	FL State U.	12,337	3,606	3,149	1,137	4,445
51	U. DE	11,860	2,286	0	2,150	7,424
52	U. IL, Chicago	11,815	270	766	393	10,386
53	SUNY, U. Albany	11,749	306	4,154	5,294	1,995
54	Yale U.	11,544	3,080	151	287	8,026
55	U. NM	11,311	455	353	5,335	5,168
56	Teachers C., Columbia U.	11,270	9,223	0	0	2,047
57	Portland State U.	11,075	409	1,486	1,254	7,926
58	SUNY, Binghamton U.	10,946	1,348	2,525	3,596	3,477
59	NY U.	10,878	2,692	4,774	858	2,554
60	U. MA, Boston	10,802	117	7,509	941	2,235
61	IN U.-Purdue U., Indianapolis	10,793	387	4,575	2,598	3,233
62	U. TX, M. D. Anderson Cancer Ctr.	10,627	0	0	10,627	0
63	U. HI, Manoa	10,274	36	0	740	9,498
64	U. MD, Baltimore County	10,021	4	9,612	389	16
65	Columbia U. in the City of New York	9,685	1,988	5,318	2,379	0
66	U. KY	9,525	4,419	1,392	1,408	2,306
67	U. CA, Irvine	9,505	385	3,250	2,704	3,166
68	GA Institute of Technology	9,496	5,685	3,513	50	248
69	U. MO, Columbia	9,092	7,280	1,347	287	178
70	VA Polytechnic Institute and State U.	9,026	1,429	1,726	1,237	4,634
71	U. UT	8,992	153	110	326	8,403
72	U. TN, Knoxville	8,252	5,263	661	1,169	1,159
73	U. South FL, Tampa	8,037	756	862	4,611	1,808
74	Case Western Reserve U.	7,661	76	34	1,103	6,448
75	Johns Hopkins U. ^a	7,552	508	9	6,116	919
76	LA State U., Baton Rouge	7,380	4,612	364	367	2,037
77	U. IA	7,293	11	3,671	266	3,345
78	U. OK, Norman and Health Science Ctr.	7,291	540	2,404	907	3,440
79	U. VA, Charlottesville	7,203	666	3,955	1,538	1,044
80	CUNY, Graduate Ctr.	7,183	345	2,384	3,363	1,091

Appendix M. Higher Education R&D Expenditures in the Social Sciences, Ranked by all FY 2013 Social Sciences: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013				Social sciences, nec
		All social sciences	Economics	Political sciences	Sociology	
81	Syracuse U.	6,826	1,697	3,720	1,157	252
82	Rutgers, State U. NJ, Newark	6,731	390	3,183	88	3,070
83	U. Notre Dame	6,511	492	4,445	913	661
84	Claremont Graduate U.	6,380	130	150	0	6,100
85	KS State U.	6,323	4,787	0	197	1,339
86	OK State U., Stillwater	6,289	3,661	11	272	2,345
87	Carnegie Mellon U.	6,264	761	1,773	103	3,627
88	U. SC, Columbia	6,241	372	371	1,814	3,684
89	U. NH	5,965	55	19	5,740	151
90	U. TN, Knoxville, Institute of Agriculture	5,943	5,868	0	0	75
91	U. Cincinnati	5,576	0	1,447	452	3,677
92	Vanderbilt U.	5,532	184	4,198	1,080	70
93	U. OR	5,350	422	1,922	403	2,603
94	U. Memphis	5,343	2,185	709	865	1,584
95	CO State U., Ft. Collins	5,303	2,593	748	638	1,324
96	OR State U.	5,267	2,391	26	1,963	887
97	Naval Postgraduate School	4,894	342	3,565	92	895
98	Emory U.	4,855	2,838	197	1,808	12
99	U. CT	4,835	2,065	716	637	1,417
100	Northeastern U.	4,681	113	2,038	387	2,143

tion did not meet the criteria for inclusion.

sewhere classified.

1 \$5,518 thousand in total R&D expenditures in social sciences in FY 2013.

NOTES: Institutions reporting zero expenditures in ranked total for FY 2013 are not listed in this table. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

1 Engineering Statistics, Higher Education Research and Development Survey.

1 FY 2013, as of 31 July 2014.

Appendix N. Higher Education R&D Expenditures in Non-Science and Engineering Fields, Ranked by all FY 2013 Non-S&E Fields: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013								
		All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
	All institutions	3,646,507	476,224	148,771	1,218,387	389,155	173,599	212,237	88,090	940,044
1	Brown U.	138,065	5,405	1,441	13,797	17,236	0	0	4,117	96,069
2	U. WI, Madison	125,978	54,469	3,036	31,170	14,054	2,879	1,386	1,341	17,643
3	Harvard U.	102,197	11,524	5,585	39,399	7,019	36,407	0	2,263	0
4	Emory U.	82,209	1,451	5	975	1,542	363	0	172	77,701
5	U. WA, Seattle	81,005	672	13,216	44,704	2,403	3,576	15,781	278	375
6	U. MI, Ann Arbor	71,043	11,860	2,007	14,311	23,842	3,787	4,759	2,375	8,102
7	WA State U.	68,045	7,853	3,865	16,185	499	0	2,036	924	36,683
8	Purdue U., West Lafayette	67,175	11,293	935	4,788	3,511	0	0	587	46,061
9	MA Institute of Technology	66,640	15,047	0	10,606	1,758	0	0	1,402	37,827
10	U. TX, Austin	61,173	9,680	5,784	22,951	2,250	211	5,071	428	14,798
11	U. FL	52,561	3,376	1,805	10,298	1,926	215	177	1,184	33,580
12	OH State U.	50,052	2,988	1,295	41,123	2,712	15	878	627	414
13	U. South FL, Tampa	49,317	6,797	3,646	22,555	4,112	0	904	2,230	9,073
14	Stanford U.	44,903	458	491	40,866	326	1,321	0	82	1,359
15	U. AK, Fairbanks	43,751	193	13	1,244	2	0	0	0	42,299
16	Columbia U. in the City of New York	43,341	1,778	5,567	0	12,301	7,602	11,403	218	4,472
17	U. GA	41,739	7,429	2,603	11,073	8,253	5,235	740	4,422	1,984
18	U. PA	38,157	15,047	4,413	7,786	4,058	1,828	3,573	1,452	0
19	AZ State U.	37,877	3,378	3,341	9,274	4,387	1,030	3,732	643	12,092
20	American U.	37,293	5,524	6,493	1,267	3,451	11,189	0	1,155	8,214
21	NY U.	36,814	1,952	0	21,263	2,817	2,321	3,830	278	4,353
22	U. CA, Berkeley	36,703	3,447	2,203	13,441	4,242	12,627	0	743	0
23	MI State U.	36,562	2,485	2,844	21,286	1,615	0	484	448	7,400
24	Clemson U.	36,306	171	253	3,151	256	0	0	6	32,469
25	FL International U.	35,607	2,912	612	8,155	13,961	1,839	2,290	405	5,433
26	U. Southern CA	35,254	1,661	7,724	6,239	5,614	2,056	8,018	2,624	1,318
27	U. OK, Norman and Health Science Ctr.	34,758	828	3,133	14,520	1,465	0	46	10	14,756
28	GA State U.	32,764	10,066	385	14,303	2,440	0	0	485	5,085
29	U. CA, Los Angeles	32,524	6,023	486	17,161	6,503	1,143	0	1,208	0
30	U. KS	31,448	109	88	24,199	1,238	54	5,502	218	40
31	U. NC, Chapel Hill	30,540	2,183	5,527	14	5,114	324	10,480	1,909	4,989
32	U. MA, Boston	30,505	224	8	24,514	341	0	0	15	5,403
33	TX Tech U.	28,170	10,007	1,964	8,029	3,870	1,583	0	2,717	0
34	Northwestern U.	27,772	7,899	4,079	7,481	2,598	2,234	0	1,062	2,419
35	FL State U.	26,452	300	292	13,820	837	132	791	483	9,797
36	U. Louisville	26,434	855	179	9,189	464	566	2,554	130	12,497
37	U. Pittsburgh, Pittsburgh	26,180	1,033	21	11,674	921	60	10,259	4	2,208
38	U. SC, Columbia	24,565	1,086	517	17,882	1,745	0	3,149	42	144
39	IN U., Bloomington	24,433	4,190	1,435	7,283	319	1,052	0	1,563	8,591
40	U. MN, Twin Cities	24,197	8,433	376	7,543	1,533	1,545	1,020	1,443	2,304
41	TX A&M U., College Station and Health Science Ctr.	23,914	5,543	0	16,024	1,993	104	0	0	250
42	U. Cincinnati	23,904	1,375	113	3,260	2,844	687	370	3,144	12,111
43	Vanderbilt U.	23,517	0	119	20,234	1,044	2,035	0	31	54
44	Old Dominion U.	22,951	5,196	0	14,651	1,709	0	0	515	880
45	Syracuse U.	22,772	5,284	1,223	4,284	2,283	6,407	829	688	1,774

Appendix N. Higher Education R&D Expenditures in Non-Science and Engineering Fields, Ranked by all FY 2013 Non-S&E Fields: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013								
		All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
46	U. IL, Urbana-Champaign	21,900	2,033	3,230	4,860	2,863	945	2,958	389	4,622
47	U. NE, Lincoln	21,336	4,930	1,717	4,713	5,233	2,051	0	2,424	268
48	VA Commonwealth U.	20,135	1	82	17,010	171	0	421	939	1,511
49	Boston C.	20,002	4,870	0	12,313	672	0	1,966	0	181
50	U. VA, Charlottesville	19,725	124	334	13,711	4,680	863	0	8	5
51	Washington U., St. Louis	19,363	440	0	392	3	25	18,493	0	10
52	Rutgers, State U. NJ, New Brunswick	19,128	1,090	614	8,898	4,218	82	657	442	3,127
53	U. Notre Dame	18,986	2,551	0	0	12,055	401	0	592	3,387
54	Johns Hopkins U. ^a	18,798	0	1,248	0	17,550	0	0	0	0
55	U. MA, Amherst	18,522	2,679	1,024	12,288	1,816	57	0	658	0
56	U. Houston	18,375	4,844	0	2,831	705	644	0	0	9,351
57	U. CA, Irvine	18,273	1,077	0	4,014	12,036	1,062	0	84	0
58	U. Central FL	18,121	11,585	104	5,568	267	0	24	558	15
59	U. TN, Knoxville	17,790	9,198	449	1,207	1,433	176	296	77	4,954
60	FL A&M U.	17,611	986	2,563	1,291	129	248	0	0	12,394
61	San Diego State U.	17,395	5,262	3,290	1,771	2,037	0	1,085	284	3,666
62	U. MD, Baltimore	16,928	0	126	0	0	725	15,081	0	996
63	Temple U.	16,897	1,225	2,007	4,420	432	2,274	3,342	212	2,985
64	Portland State U.	16,650	79	181	3,648	8	0	12,596	1	137
65	SUNY, Buffalo	16,476	661	354	12,822	926	440	1,001	69	203
66	U. CO, Boulder	16,186	1,694	182	10,731	852	2,114	366	96	151
67	U. OR	15,868	0	76	15,056	673	56	0	0	7
68	U. West FL	15,328	9,276	126	3,132	481	0	908	1	1,404
69	OH U.	14,988	10	180	302	118	0	0	152	14,226
70	Fayetteville State U.	14,648	2,136	733	9,756	241	0	586	190	1,006
71	U. TX, Arlington	14,164	751	539	683	389	18	2,889	96	8,799
72	CA Institute of Technology	13,557	1,347	0	0	5,784	0	0	0	6,426
73	U. AR, Fayetteville	13,205	4,882	12	3,706	556	521	554	27	2,947
74	George Mason U.	13,064	69	816	8,573	3,195	198	166	47	0
75	U. AZ	12,979	686	1,303	5,644	3,041	1,814	0	491	0
76	U. NH	12,911	521	2	10,992	344	56	993	3	0
77	PA State U., University Park and Hershey Medical Ctr.	12,869	5,025	1,525	2,619	3,000	485	0	215	0
78	U. Chicago	12,721	2,459	0	0	975	463	6,942	0	1,882
79	IL State U.	12,434	1,090	10	10,458	67	0	179	114	516
80	U. IA	12,280	633	532	4,865	2,992	242	516	448	2,052
81	Fordham U.	12,118	2,866	477	3,439	1,193	2,514	1,489	138	2
82	U. MA, Lowell	11,671	1,837	26	1,853	731	0	0	236	6,988
83	Winthrop U.	11,288	11	2	3,507	16	0	7,016	16	720
84	FL Gulf Coast U.	11,261	830	1,427	8,933	0	0	2	0	69
85	U. CA, Santa Barbara	10,521	5,266	566	2,191	1,804	0	0	694	0
86	TX State U., San Marcos	10,382	146	0	4,261	0	3,801	0	395	1,779
87	George Washington U.	10,276	4,584	398	2,431	2,259	0	0	274	330
88	U. TX, El Paso	10,244	1,536	582	1,052	959	3	194	153	5,765
89	NJ Institute of Technology	10,222	656	0	4,776	68	0	0	0	4,722
90	MT State U., Bozeman	9,992	105	153	2,769	28	0	1,652	52	5,233
91	U. CA, Davis	9,864	214	119	4,636	485	212	0	4,193	5
92	U. MS and U. MS, Jackson, Medical Ctr.	9,814	110	27	284	728	2,777	9	24	5,855

Appendix N. Higher Education R&D Expenditures in Non-Science and Engineering Fields, Ranked by all FY 2013 Non-S&E Fields: By Subfield for FY 2013 (Top 100 Institutions)

(Dollars in thousands)

Rank	Institution	2013								
		All non-S&E fields	Business and management	Communication, journalism, and library science	Education	Humanities	Law	Social work	Visual and performing arts	Other
93	U. LA, Lafayette	9,798	1,702	344	5,159	2,041	0	0	544	8
94	CO State U., Ft. Collins	9,777	1,598	950	954	244	0	0	59	5,972
95	C. of William and Mary and VA Institute of Marine Science	9,757	231	0	8,833	391	53	0	0	249
96	U. DE	9,497	1,168	0	6,656	1,605	0	0	0	68
97	RI C.	9,218	0	0	8,047	45	0	1,071	0	55
98	Tulane U.	9,100	243	68	0	593	2,907	46	292	4,951
99	MS State U.	9,065	1,179	327	1,885	2,185	0	0	257	3,232
100	U. IL, Chicago	9,051	1,452	157	3,677	1,099	0	2,555	99	12

i = imputed. ne = not eligible; institution did not meet the criteria for inclusion.

S&E = science and engineering.

^a Johns Hopkins University includes Applied Physics Laboratory, with \$0 in total non-S&E R&D expenditures in FY 2013.

NOTES: Institutions reporting zero expenditures in ranked total for FY 2013 are not listed in this table. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey.

Data from survey cycle FY 2013, as of 31 July 2014.

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
	All institutions	39,470,157	5,037,554	1,873,818	21,222,929	1,332,307	5,395,972	1,091,575	3,516,002
1	Johns Hopkins U. ^b	1,898,927	649,571	9,747	656,155	172,381	32,403	2,806	375,864
2	U. WA, Seattle	928,193	91,468	28,479	584,686	13,681	129,739	9,176	70,964
3	U. MI, Ann Arbor	814,167	73,021	41,901	541,087	21,152	88,871	1,877	46,258
4	Stanford U.	652,472	89,026	24,069	413,315	22,431	88,825	122	14,684
5	U. PA	636,589	47,181	12,380	514,342	4,572	39,177	1,144	17,793
6	Columbia U. in the City of New York	635,987	41,438	19,877	432,904	19,084	90,408	4,340	27,936
7	U. CA, San Diego	632,593	77,488	22,076	408,946	7,122	88,912	617	27,432
8	U. NC, Chapel Hill	623,237	12,233	9,558	481,357	1,026	38,421	965	79,677
9	U. Pittsburgh, Pittsburgh	622,232	44,546	9,411	518,918	760	27,679	164	20,754
10	Harvard U.	594,392	53,524	15,105	448,261	12,212	47,448	96	17,746
11	Duke U.	581,695	50,330	12,582	456,147	2,870	41,856	754	17,156
12	U. CA, San Francisco	566,117	10,766	634	544,236	836	1,426	0	8,219
13	PA State U., University Park and Hershey Medical Ctr.	558,871	224,694	60,349	130,688	14,334	62,447	23,788	42,571
14	U. WI, Madison	555,875	26,459	73,579	280,581	13,743	94,092	22,435	44,986
15	GA Institute of Technology	522,134	337,614	25,373	38,890	14,011	70,377	621	35,248
16	Yale U.	503,227	30,831	11,296	417,495	3,154	33,941	1,042	5,468
17	U. CA, Los Angeles	501,368	41,254	23,248	350,402	17,851	58,874	337	9,402
18	U. MN, Twin Cities	494,206	21,197	26,585	324,478	7,064	71,165	24,993	18,724
19	MA Institute of Technology	490,809	131,439	89,359	121,772	31,107	96,023	0	21,109
20	U. IL, Urbana-Champaign	468,798	49,290	53,317	73,045	4,577	240,974	19,620	27,975
21	OH State U.	456,590	36,249	21,676	236,318	5,929	56,012	27,242	73,164
22	Cornell U.	445,116	35,022	20,216	207,686	9,843	126,387	33,714	12,248
23	Vanderbilt U.	445,044	36,961	8,313	356,712	1,559	21,019	72	20,408
24	U. Southern CA	437,813	92,714	12,182	260,828	3,680	38,655	468	29,286
25	Washington U., St. Louis	411,299	7,377	9,347	367,355	7,938	17,807	31	1,444
26	Northwestern U.	396,138	33,626	24,904	277,028	1,749	47,963	137	10,731
27	U. TX, Austin	372,633	124,334	37,668	66,953	14,980	100,704	497	27,497
28	Emory U.	365,121	7,756	941	333,199	3,164	9,646	1,146	9,269
29	Case Western Reserve U.	349,487	14,188	3,553	307,676	4,114	17,609	3	2,344
30	U. CA, Davis	347,038	18,873	13,184	191,208	2,487	46,257	33,640	41,389
31	U. MD, College Park	342,778	95,782	14,429	44,746	44,552	57,094	20,671	65,504
32	U. AZ	338,790	28,390	12,057	110,608	92,168	67,835	9,804	17,928
33	U. CO, Boulder	319,869	23,481	20,241	50,820	91,152	75,557	591	58,027
34	TX A&M U., College Station and Health Science Ctr.	314,104	25,940	30,233	66,919	6,005	104,198	29,978	50,831
35	U. CA, Berkeley	311,809	39,157	19,252	117,896	22,186	84,265	3,605	25,448
36	Scripps Research Institute	308,628	3,273	936	274,175	866	2,971	0	26,407
37	U. UT	301,045	17,444	21,767	204,650	2,806	33,450	635	20,293
38	NY U.	300,730	13,029	3,801	247,037	1,511	27,334	782	7,236

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
39	U. Chicago	300,718	12,221	10,006	214,048	5,008	52,790	246	6,399
40	U. Rochester	299,553	8,713	74,364	198,958	1,159	14,320	67	1,972
41	U. CO, Denver and Anschutz Medical Campus	296,932	16,557	287	264,713	38	4,428	1,369	9,540
42	U. FL	296,199	25,332	13,326	156,045	3,666	40,758	28,281	28,791
43	Rutgers, State U. NJ, New Brunswick	295,028	21,310	11,536	116,039	6,659	55,145	44,663	39,676
44	U. AL, Birmingham	290,082	13,298	1,721	251,137	10,072	5,562	14	8,278
45	Baylor C. of Medicine	285,230	12,027	0	237,680	17,584	1,983	15,441	515
46	CA Institute of Technology	282,823	30,533	28,421	61,951	65,834	91,450	334	4,300
47	Icahn School of Medicine at Mt. Sinai	277,517	3,735	0	271,072	373	477	0	1,860
48	Purdue U., West Lafayette	271,504	34,806	28,773	56,134	6,435	90,919	28,638	25,799
49	Boston U.	267,194	21,425	5,934	198,497	4,503	29,966	74	6,795
50	MI State U.	260,610	14,052	45,105	63,312	2,170	77,357	28,734	29,880
51	U. Cincinnati	258,460	11,423	2,952	226,338	628	10,034	212	6,873
52	U. IA	255,329	14,506	2,614	201,160	9,491	13,541	1,030	12,987
53	OR Health and Science U.	246,491	7,204	1,137	226,354	1,332	7,960	184	2,320
54	U. MD, Baltimore	242,108	15,232	239	222,357	502	1,980	217	1,581
55	U. VA, Charlottesville	225,567	27,426	9,827	139,269	4,100	24,413	103	20,429
56	U. South FL, Tampa	225,414	16,620	2,096	137,171	2,110	12,981	267	54,169
57	U. HI, Manoa	225,359	54,875	15,322	55,607	16,055	35,777	11,205	36,518
58	U. IL, Chicago	222,566	8,722	3,971	165,427	287	22,112	836	21,211
59	CO State U., Ft. Collins	219,856	39,936	11,485	50,377	8,252	38,795	31,833	39,178
60	Carnegie Mellon U.	215,560	72,511	13,103	31,070	5,752	74,826	878	17,420
61	U. Miami	205,870	20,882	2,183	139,123	3,400	15,454	152	24,676
62	SUNY, Buffalo	204,995	32,174	1,898	130,750	2,641	23,009	433	14,090
63	VA Polytechnic Institute and State U.	201,646	35,593	14,863	40,102	3,080	39,246	21,495	47,267
64	AZ State U.	201,363	31,950	16,321	62,141	21,274	54,695	1,939	13,043
65	U. CA, Irvine	198,730	14,729	9,907	128,944	5,281	35,371	89	4,409
66	U. TX, Southwestern Medical Ctr., Dallas	198,114	7,016	282	184,914	3,509	1,184	32	1,177
67	Yeshiva U.	193,831	1,174	579	191,136	0	733	209	0
68	U. MA, Medical School	189,159	5,427	0	181,598	0	928	60	1,146
69	U. TX, M. D. Anderson Cancer Ctr.	182,971	9,144	0	173,336	60	293	0	138
70	NC State U.	177,118	14,279	13,398	20,762	2,036	47,580	19,501	59,562
71	U. KS	174,021	5,317	5,837	106,954	3,082	25,198	1,629	26,004
72	Woods Hole Oceanographic Institution	158,672	27,243	572	1,669	4,875	106,310	1	18,002
73	U. NM	158,057	22,352	9,609	81,649	3,310	34,496	437	6,204
74	Princeton U.	156,541	28,285	17,079	42,999	6,673	54,415	405	6,685
75	Wake Forest U.	156,506	7,378	115	145,093	295	1,786	24	1,815
76	Dartmouth C.	155,209	8,885	3,551	119,281	3,801	13,462	217	6,012
77	IN U.-Purdue U., Indianapolis	152,578	5,856	675	139,822	341	3,541	60	2,283

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
78	U. KY	150,468	5,350	8,403	92,003	2,637	14,262	13,030	14,783
79	OR State U.	149,396	13,874	12,788	21,470	5,576	40,354	27,260	28,074
80	U. CT	148,651	11,646	5,525	87,965	1,064	22,112	5,752	14,587
81	FL State U.	148,413	19,600	7,838	22,478	2,560	57,221	2,000	36,716
82	U. TX, Health Science Ctr., Houston	144,235	9,867	0	126,713	154	565	372	6,564
83	Uniformed Services U. of the Health Sciences	137,152	119,161	0	16,971	0	0	0	1,020
84	VA Commonwealth U.	135,804	8,134	2,304	97,612	348	8,157	3,980	15,269
85	WA State U.	134,329	9,542	11,355	19,592	207	18,207	36,623	38,803
86	U. CA, Santa Barbara	132,960	46,037	10,723	17,999	4,173	48,034	248	5,746
87	U. OK, Norman and Health Science Ctr.	132,456	11,037	8,819	62,035	3,099	17,480	467	29,519
88	Temple U.	131,872	8,420	1,748	101,611	247	10,351	1,064	8,431
89	U. GA	131,824	2,555	11,923	54,232	1,211	28,488	22,481	10,934
90	Medical U. SC	127,472	7,552	3,863	106,166	0	625	117	9,149
91	Brown U.	126,559	10,921	7,572	70,748	4,770	28,117	0	4,431
92	IA State U.	121,993	10,122	6,823	17,521	1,800	38,253	32,304	15,170
93	George Washington U.	120,857	7,328	2,155	83,284	1,195	10,691	465	15,739
94	U. of Medicine and Dentistry of NJ	119,944	5,048	77	110,289	0	1,772	0	2,758
95	U. DE	119,756	23,511	16,008	24,487	3,078	29,634	7,461	15,577
96	Wayne State U.	119,520	6,938	2,515	93,342	45	8,794	111	7,775
97	SUNY, Stony Brook U.	118,513	7,339	12,128	67,329	3,149	23,996	120	4,452
98	U. TN, Knoxville	117,836	17,808	33,738	5,114	2,888	41,380	672	16,236
99	Medical C. WI	116,765	3,046	0	110,613	0	265	0	2,841
100	Georgetown U.	114,760	18,700	606	77,904	1,000	6,209	19	10,322
101	SUNY, U. Albany	114,158	4,304	427	96,665	642	4,883	215	7,022
102	Tufts U.	113,450	7,398	1,578	68,284	1,007	11,840	15,881	7,462
103	U. MO, Columbia	111,510	11,177	6,503	54,813	551	18,204	11,527	8,735
104	U. MA, Amherst	111,448	11,159	13,166	20,779	2,576	38,883	9,786	15,099
105	U. TX, Medical Branch	108,287	7,735	846	93,440	4,202	609	99	1,356
106	UT State U.	106,985	48,969	3,530	8,661	7,895	9,606	12,442	15,882
107	U. NH	102,053	1,257	2,278	7,553	24,284	19,515	4,974	42,192
108	U. TX, Health Science Ctr., San Antonio	99,198	10,131	0	85,274	312	198	0	3,283
109	U. NE, Lincoln	98,235	12,519	5,067	16,901	1,755	29,334	10,326	22,333
110	Tulane U.	97,994	4,589	951	80,188	175	6,814	194	5,083
111	U. AK, Fairbanks	94,953	9,333	5,536	6,189	16,313	25,982	3,378	28,222
112	LA State U., Baton Rouge	94,563	4,957	5,141	38,130	2,646	16,292	15,151	12,246
113	U. SC, Columbia	91,612	7,773	11,380	44,623	1,325	16,032	1,094	9,385
114	Naval Postgraduate School	91,134	80,711	1,058	0	357	7,005	0	2,003
115	U. CA, Santa Cruz	91,002	3,364	3,674	22,980	29,707	22,260	931	8,086
116	NM State U.	86,806	18,368	7,665	6,600	35,818	9,721	5,226	3,408
117	IN U., Bloomington	85,852	4,233	7,888	31,622	2,293	34,322	339	5,155

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
118	U. AL, Huntsville	85,738	58,431	1,333	335	18,155	5,384	636	1,464
119	Northeastern U.	85,170	13,727	6,152	32,297	164	22,159	70	10,601
120	U. VT	85,118	2,411	855	59,709	1,912	10,502	5,379	4,350
121	U. NE, Medical Ctr.	80,750	7,144	153	70,185	820	394	253	1,801
122	Rockefeller U.	80,384	11,145	420	67,118	56	1,645	0	0
123	Rice U.	80,075	18,649	8,182	19,260	3,081	28,243	279	2,381
124	U. Notre Dame	79,564	15,354	14,707	19,102	1,442	24,755	169	4,035
125	U. Louisville	78,144	4,729	868	59,779	364	4,541	98	7,765
126	U. Central FL	76,533	23,805	12,943	14,354	2,681	11,394	261	11,095
127	Drexel U.	76,187	10,205	1,569	40,407	574	17,193	814	5,425
128	U. OR	75,423	7,190	4,799	27,135	28	17,267	673	18,331
129	U. RI	74,870	5,692	2,062	21,323	639	18,572	6,659	19,923
130	WV U.	74,704	5,359	11,891	25,350	3,989	9,956	9,226	8,933
131	MS State U.	74,075	10,341	11,234	2,717	1,281	10,644	18,535	19,323
132	MT State U., Bozeman	73,619	8,388	7,277	20,907	5,940	15,281	5,732	10,094
133	FL International U.	72,357	3,919	4,792	21,027	1,178	12,405	820	28,216
134	KS State U.	70,167	8,198	6,726	10,930	686	15,073	19,453	9,101
135	U. Dayton	67,698	61,079	886	582	391	741	0	4,019
136	George Mason U.	65,096	19,829	823	8,803	7,071	8,566	225	19,779
137	U. AR for Medical Sciences	64,856	1,578	0	61,113	0	63	0	2,102
138	U. MS and U. MS, Jackson, Medical Ctr.	64,590	8,619	2,074	37,038	2,118	4,407	5,985	4,349
139	U. Houston	61,038	4,464	8,057	20,855	4,172	14,404	1	9,085
140	Rensselaer Polytechnic Institute	60,870	13,804	7,993	11,994	812	21,815	100	4,352
141	U. CA, Riverside	59,065	5,420	4,612	14,549	749	21,577	6,561	5,597
142	NJ Institute of Technology	57,466	3,368	1,350	10,620	2,227	10,371	72	29,458
143	Auburn U., Auburn	57,253	9,794	2,486	8,760	1,639	9,305	11,919	13,350
144	Rush U.	57,063	2,378	233	53,763	0	23	41	625
145	U. NV, Reno	56,900	4,349	11,588	21,132	556	6,852	3,402	9,021
146	Thomas Jefferson U.	56,247	1,978	0	52,870	117	382	58	842
147	U. ID	53,986	4,491	6,107	7,364	2,964	10,300	15,513	7,247
148	U. WY	53,971	1,851	11,403	6,108	1,271	10,677	3,565	19,096
149	Clemson U.	52,002	5,062	1,494	5,973	560	16,458	3,375	19,080
150	San Diego State U.	51,274	6,611	1,049	31,554	1,215	8,534	98	2,213
151	Cleveland State U.	50,243	1,080	108	46,495	696	1,010	0	854
152	GA Regents U.	47,913	1,330	95	45,859	15	614	0	0
153	U. ND	46,491	4,811	21,477	9,129	4,319	3,363	2,058	1,334
154	Brandeis U.	45,337	1,295	1,132	31,421	0	7,207	101	4,181
155	U.S. Air Force Academy	45,169	43,515	0	0	170	493	0	991
156	U. MD, Baltimore County	44,662	6,317	419	13,327	14,581	6,973	477	2,568
157	OK State U., Stillwater	44,200	5,945	2,233	6,639	131	7,952	9,832	11,468

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
158	U. TN, Health Science Ctr.	42,269	2,543	146	38,874	0	204	47	455
159	Cold Spring Harbor Lab.	41,002	2,201	1,170	29,919	0	7,406	306	0
160	U. Toledo	40,497	2,568	1,777	21,537	3,551	7,352	1,138	2,574
161	Portland State U.	40,377	2,577	1,423	14,707	899	6,661	1,317	12,793
162	CUNY, City C.	40,094	2,794	2,145	11,908	2,759	9,624	11	10,853
163	Old Dominion U.	39,963	9,495	3,569	3,885	3,858	5,857	0	13,299
164	FL A&M U.	39,675	2,504	686	6,012	276	2,317	8,684	19,196
165	ND State U.	38,453	4,827	3,390	5,436	157	7,665	9,787	7,191
166	U. TX, El Paso	38,253	3,563	1,629	11,168	2,123	10,565	1,030	8,175
167	GA State U.	37,521	757	627	19,695	618	6,049	227	9,548
168	LA State U., Health Sciences Ctr., New Orleans	36,886	312	0	36,318	3	21	0	232
169	Morehouse School of Medicine	34,511	863	0	33,429	0	219	0	0
170	U. ME	34,252	2,411	4,537	2,231	997	12,820	4,662	6,594
171	U. MT, Missoula	34,021	2,305	284	10,489	2,151	8,011	6,495	4,286
172	Howard U.	33,966	2,782	230	17,474	1,103	7,250	161	4,966
173	U. TX, Dallas	33,920	10,235	3,010	9,665	1,158	8,902	44	906
174	SD State U.	33,231	2,926	4,938	2,253	3,073	6,678	8,876	4,487
175	Loyola U., Chicago	33,074	2,652	0	27,152	41	2,228	75	926
176	CO School of Mines	32,399	6,677	10,834	2,129	614	10,471	165	1,509
177	MI Technological U.	32,086	11,402	3,179	1,089	2,960	6,920	2,070	4,466
178	SUNY, Health Science Ctr. Brooklyn	31,972	3,128	18	28,826	0	0	0	0
179	St. Louis U.	31,645	2,027	0	26,074	197	1,024	0	2,323
180	C. of William and Mary and VA Institute of Marine Science	31,628	2,702	2,196	1,882	1,085	8,137	200	15,426
181	U. PR, Medical Sciences Campus	31,037	347	0	30,102	0	588	0	0
182	U. TX, Arlington	30,815	7,331	1,865	5,681	1,018	8,161	133	6,626
183	U. AR, Fayetteville	30,625	2,202	1,762	2,438	543	9,403	12,664	1,613
184	Jackson State U.	29,700	2,199	713	11,743	211	7,093	107	7,634
185	U. TX, San Antonio	29,078	6,344	209	13,970	707	5,939	183	1,726
186	TX Tech U.	28,827	5,882	2,426	2,285	725	8,042	2,998	6,469
187	Eastern VA Medical School	28,728	592	0	5,040	425	13	0	22,658
188	U. Southern MS	28,694	6,170	166	3,785	2,483	3,503	1,525	11,062
189	U. AL, Tuscaloosa	28,375	1,846	4,871	4,147	1,233	8,488	263	7,527
190	IL Institute of Technology	28,319	4,692	6,575	10,487	169	4,748	448	1,200
191	Boston C.	27,975	6,878	1,456	10,794	275	4,893	0	3,679
192	San Jose State U.	27,780	149	179	1,218	16,113	2,038	214	7,869
193	Syracuse U.	27,729	3,693	1,804	2,922	327	12,373	32	6,578
194	U. MA, Lowell	27,360	7,696	1,519	7,090	939	5,890	0	4,226
195	Wright State U.	26,888	12,584	450	9,504	456	2,850	60	984
196	U. WI, Milwaukee	26,450	1,474	1,354	9,934	156	10,140	618	2,774

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
197	Loma Linda U.	26,253	7,755	215	15,791	2,265	81	2	144
198	MO U. of Science and Technology	25,571	6,680	4,151	905	346	4,200	127	9,162
199	U. MA, Boston	24,924	549	329	8,290	573	5,215	0	9,968
200	Lehigh U.	24,831	4,870	2,040	3,465	185	10,231	0	4,040
201	Stevens Institute of Technology	24,812	11,712	322	613	1,075	6,858	10	4,222
202	U. NV, Las Vegas	24,502	1,077	9,636	3,016	952	4,195	1,191	4,435
203	U. North TX, Health Science Ctr.	24,187	1,073	0	16,950	0	65	0	6,099
204	SUNY, U. Albany, C. of Nanoscale Science and Engineering	24,146	2,497	14,729	3,005	86	2,538	0	1,291
205	SUNY, Upstate Medical U.	23,730	717	0	19,143	0	0	0	3,870
206	Brigham Young U., Provo	23,639	4,736	1,480	4,226	1,152	7,152	1,745	3,148
207	NM Institute of Mining and Technology	23,581	6,316	7,320	434	874	7,784	0	853
208	AL A&M U.	23,451	3,027	1,495	9,664	539	4,262	1,745	2,719
209	Desert Research Institute	22,814	5,117	7,866	21	1,378	4,400	1,146	2,886
210	CUNY, Hunter C.	22,512	471	971	17,425	174	2,394	0	1,077
211	NC Agricultural and Technical State U.	21,663	3,190	664	1,465	1,395	7,863	5,944	1,142
212	Meharry Medical C.	21,135	791	0	20,307	0	0	3	34
213	U. NC, Charlotte	20,994	3,859	679	3,453	28	9,088	322	3,565
214	OH U.	20,203	2,282	2,383	3,803	794	5,382	115	5,444
215	U. Akron	19,658	7,429	1,094	1,811	1,861	4,623	227	2,613
216	Mercer U.	19,411	17,187	0	1,912	21	264	0	27
217	San Francisco State U.	19,024	728	397	8,846	410	5,373	45	3,225
218	Air Force Institute of Technology	18,739	17,981	93	7	0	114	0	544
219	U. Memphis	18,619	2,661	230	3,777	118	4,254	7	7,572
220	Southern IL U., Carbondale	18,398	1,482	574	9,295	39	2,575	1,012	3,421
221	Rochester Institute of Technology	18,379	4,692	1,334	709	2,023	7,180	152	2,289
222	East Carolina U.	18,227	2,430	198	12,073	106	1,724	61	1,635
223	U. PR, Rio Piedras	17,946	907	838	8,624	1,822	4,233	531	991
224	SUNY, Binghamton U.	17,715	4,659	1,063	5,608	152	3,569	0	2,664
225	U. TN, Knoxville, Institute of Agriculture	17,493	845	2,611	2,235	0	581	8,391	2,830
226	Catholic U. of America	17,310	1,556	5,871	1,737	5,747	2,011	0	388
227	Charles R. Drew U. of Medicine and Science	17,144	2,445	0	14,699	0	0	0	0
228	Worcester Polytechnic Institute	17,003	5,794	1,157	1,400	334	5,653	170	2,495
229	U. MD, Ctr. for Environmental Science	16,852	158	0	259	255	6,775	169	9,236
230	Tuskegee U.	16,789	512	541	5,822	144	5,329	3,871	570
231	U. North TX, Denton	16,515	3,628	936	1,538	104	8,462	121	1,726
232	Rutgers, State U. NJ, Newark	16,295	715	405	6,828	17	3,922	8	4,400
233	Boise State U.	16,117	1,187	4,156	2,259	843	5,372	394	1,906
234	U. MO, Kansas City	15,774	1,659	532	11,260	217	1,553	190	363
235	Northern AZ U.	15,638	1,844	429	2,791	653	3,569	2,593	3,759

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
236	U. of the VI	15,627	0	39	2,889	13	3,415	3,230	6,041
237	CUNY, Queens C.	15,443	474	8,294	3,308	0	2,222	1	1,144
238	U. HI, Hilo	15,391	725	0	1,492	211	5,840	842	6,281
239	U. SD	15,274	1,165	1,655	8,241	153	3,444	0	616
240	U. Denver	15,089	665	428	5,567	473	3,886	14	4,056
241	TX State U., San Marcos	14,908	1,083	9	4,414	0	2,911	1,892	4,599
242	TX Tech U., Health Sciences Ctr.	14,820	859	0	13,542	11	226	0	182
243	Polytechnic Institute of NY U.	14,460	3,253	894	148	20	8,945	0	1,200
244	U. PR, Mayaguez	14,414	890	633	2,374	136	0	1,131	9,250
245	Southern Methodist U.	14,274	5,649	2,907	2,159	22	2,757	53	727
246	NY Medical C.	13,806	0	0	13,806	0	0	0	0
247	U. South AL	13,743	347	31	10,426	251	1,091	103	1,494
248	U. NC, Greensboro	13,658	12	0	7,887	0	2,477	265	3,017
249	Creighton U.	13,569	1,010	372	9,972	250	1,162	95	708
250	FL Atlantic U.	13,555	2,434	1,148	5,718	285	1,401	57	2,512
251	Marshall U.	13,472	3,998	1,268	3,935	281	1,434	22	2,534
252	Wichita State U.	13,434	2,185	277	5,552	1,387	942	0	3,091
253	Morgan State U.	13,357	1,553	690	1,444	7,480	811	26	1,353
254	ID State U.	13,206	818	6,102	1,585	84	3,876	4	737
255	U. West FL	12,927	702	0	298	0	119	0	11,808
256	Miami U.	12,676	1,102	339	3,224	21	6,044	11	1,935
257	Hampton U.	12,620	1,733	1,736	667	3,921	3,598	19	946
258	Northern IL U.	12,415	4,919	2,141	1,119	0	2,879	523	834
259	Western MI U.	12,322	226	1,740	1,253	334	4,476	304	3,989
260	Fayetteville State U.	11,906	317	0	473	0	793	0	10,323
261	DE State U.	11,837	840	463	3,388	1,313	2,096	3,062	675
262	LA State U., Medical Ctr., Shreveport	11,753	540	0	10,978	0	221	8	6
263	CA State U., Fullerton	11,716	677	98	2,582	206	2,604	165	5,384
264	U.S. Military Academy	11,630	11,630	0	0	0	0	0	0
265	Kent State U.	11,506	903	1,349	4,028	0	3,546	7	1,673
266	Embry-Riddle Aeronautical U.	11,456	404	51	0	278	1,351	128	9,244
267	Ponce School of Medicine and Health Sciences	11,251	0	0	11,251	0	0	0	0
268	Rosalind Franklin U. of Medicine and Science	11,202	630	0	10,572	0	0	0	0
269	U. LA, Lafayette	11,090	596	655	5,859	294	1,553	82	2,051
270	U. New Orleans	11,051	3,641	147	796	266	2,020	0	4,181
271	U. CA, Merced	10,983	837	977	2,399	14	5,018	229	1,509
272	SC State U.	10,776	51	1,786	393	23	1,639	2,880	4,004
273	CA State U., Long Beach	10,701	1,915	383	3,971	1,313	1,849	920	350
274	U.S. Naval Academy	10,482	8,242	239	0	832	1,169	0	0

Appendix O. Federally Financed Higher Education R&D Expenditures, Ranked by all Federal R&D Expenditures, by Federal Agency: FY 2013 (Top 300 Institutions)

(Dollars in thousands)

Rank	Institution	All federal R&D expenditures	DOD	DOE	HHS	NASA	NSF	USDA	Other ^a
275	American U.	10,421	193	0	2,136	898	992	446	5,756
276	CA Polytechnic State U., San Luis Obispo	10,280	1,319	232	1,554	3,243	1,935	895	1,102
277	Albany Medical C.	10,278	712	0	9,566	0	0	0	0
278	TN State U.	9,872	907	421	956	63	1,513	5,683	329
279	U. AK, Anchorage	9,686	62	455	3,752	246	2,410	52	2,709
280	Bowling Green State U.	9,323	408	1,976	2,076	0	4,116	190	557
281	Morehouse C.	9,226	0	1,322	3,630	8	2,470	23	1,773
282	U. NC, Wilmington	9,133	710	0	746	92	2,803	201	4,581
283	Prairie View A&M U.	9,077	447	1,184	59	1,100	1,293	4,994	0
284	RI C.	8,976	23	0	1,646	0	841	0	6,466
285	LA Tech U.	8,881	1,679	376	1,037	229	1,780	292	3,488
286	U. MA, Dartmouth	8,860	1,561	240	201	245	2,876	250	3,487
287	Marquette U.	8,756	486	64	4,239	20	1,989	0	1,958
288	U. TX, Brownsville	8,733	512	0	4,246	873	2,590	203	309
289	U. MD, Eastern Shore	8,511	2	0	277	0	1,162	3,892	3,178
290	Teachers C., Columbia U.	8,494	121	0	2,129	0	1,040	415	4,789
291	Claremont Graduate U.	8,452	350	0	6,172	0	280	500	1,150
292	Fisk U.	8,439	231	198	2,898	180	2,812	0	2,120
293	SUNY, C. of Environmental Science and Forestry	8,382	711	559	3,937	307	1,277	797	794
294	Alcorn State U.	8,321	266	254	798	0	294	6,065	644
295	NC Central U.	8,253	479	350	6,594	51	625	50	104
296	CA State U., Northridge	7,906	1,255	0	3,427	400	2,710	0	114
297	U. MO, St. Louis	7,868	232	475	3,129	38	2,650	0	1,344
298	SD School of Mines and Technology	7,853	1,968	827	22	1,739	2,863	210	224
299	Dillard U.	7,692	465	0	7,190	0	24	13	0
300	Oakland U.	7,605	2,349	137	2,238	25	1,363	737	756

i = imputed.

DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NSF = National Science Foundation; USDA = U.S. Department of Agriculture.

^a Includes all other agencies reported.

^b Johns Hopkins University includes Applied Physics Laboratory, with \$1,116,838 thousand in federally financed R&D expenditures in FY 2013.

NOTES: Institutions reporting zero federal expenditures for FY 2013 are not listed in this table. Tied institutions are ranked alphabetically. Institutions ranked are geographically separate campuses headed by a campus-level president or chancellor. Some campuses are part of large multi-campus universities; some are part of state university systems. For a complete listing of campuses that belong to a larger university or system and their aggregate R&D expenditures, see table 84.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY